HELSINKI SCHOOL OF ECONOMICS (HSE)
Department of Accounting and Finance

A CONTEMPORARY CONTROLLER FUNCTION IN A MULTINATIONAL COMPANY

Case: UPM-Kymmene Corporation

Accounting
Master´s thesis
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ABSTRACT
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Study objectives

This study aimed to analyze the nature of a contemporary controller function in a single-case setting. First of all, the study strived for examining the relevance of 'bean counter' concept in the contemporary context. Moreover, one of the key objectives was to shed light on the key driving forces behind management accounting professionals' role change.

Research material

The study concentrated on the most recent management accounting literature, especially in the area of management accountants' role change. Consequently, the literature primarily dealt with the contemporary nature of controllers and the problematics related to the traditional 'bean counters'. Furthermore, institutional change literature was utilized in the study. The field material was gathered by interviewing eight management accounting professionals operating principally in Business Control.

Research methods

The literature provided quite an extensive picture of the contemporary controller function, which laid solid foundation for the empirical observations. Consequently, the most recent views over 'bean counters' existence and contemporary controllers' roles were outlined through the academic writings. Finally, the empirical part aimed to provide a rich description of the investigated organizational reality by introducing plenty of citations from the field.

Study outcomes

Traditionally defined 'bean counter' is non-descriptive in the exposed contemporary reality. Economic, structural and institutional pressures drive the need for re-examining the conventional 'bean counter' metaphor. A contemporary management accounting professional operates in an extremely business-oriented way, and acts as an agent for instilling profitability focus into the line organization. On the other hand, a contemporary 'bean counter' is socially capable accounting specialist, who operates in centralized service centers.

Key words

management accounting change, 'bean counter' metaphor, driving forces, contemporary controller function, non-financials, cost-consciousness

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NYKYAIKAINEN CONTROLLER-TOIMINTO MONIKANSALLISESSA YRITYKSESSÄ
Case: UPM-Kymmene Oyj.

Tutkimuksen tavoitteet

Tutkimuksen keskeisenä tavoitteena oli analysoida nykyaikaisen controller-toiminnon luonnetta yhden case-yrityksen osalta. Ennen kaikkea tutkimuksessa pyrittiin selvittämään 'pavunlaskija' metaforan relevanssia nykyajan kontekstissa. Lisäksi tavoitteena oli jäsennellä johdon laskentatoimen ammattilaisen roolimuutokseen vaikuttaneita voimia.

Lähdeaineisto

Tutkimuksen lähdekirjallisuus edusti viimeisintä johdon laskentatoimen ammattilaisen roolimuutosta kuvaavaa kirjallisuutta. Kirjallinen aineisto keskittyi pääasiassa controller-toiminnon moderniin rooliin sekä traditionaalisen toimenkuvan problematisointiin. Myös institutionaalista johdon laskentatoimen muutoskirjallisuutta hyödynnettiin tutkimuksessa. Empiria-aineisto kerättiin haastattelemalla kahdeksaa pääasiassa Business Control – yksikössä toimivaa taloushallinnon ammattilaista.

Aineiston käsittely

Lähdekirjallisuuden perusteella muodostettu kuva nykyaikaisesta controller-toiminnosta antoi varsin hyvät valmiudet laskentatoimen ammattilaisen toimintakentän empiiriseen tutkimukseen. Kirjallisen lähdeaineiston avulla kartoitettiin viimeisin näkemys 'pavunlaskija' controllerin olemassaolosta sekä nykyaikaisen johdon laskennan ammattilaisen roolista. Empiriaosiossa pyrittiin muodostamaan mahdollisimman rikas kuvaus controller-toiminnon nykyisestä luonteesta tarjoamalla runsaasti suoria lainauksia kentältä.

Tulokset

Traditionaalisesti määritellylle 'pavunlaskijalle' ei löydy tilaa nykyaikaisesta controller-toiminnosta. Taloudelliset, rakenteelliset ja institutionaaliset tekijät asettavat paineen muokata perinteistä 'pavunlaskija' metaforaa. Moderni johdon laskentatoimen ammattilainen toimii hyvin business-lähtöisesti, ja ajaa kannattavuus-näkökulmaa linja-organisaation prosesseihin. Toisaalta taas nykyaikainen 'pavunlaskija' on sosiaalisesti kyvykäs laskentaspesialisti, joka toimii keskitetyissä palvelukeskuksissa.

Avainsanat

johdon laskentatoimen muutos, 'pavunlaskija' metafora, muutosvoimat, nykyaikainen controller-toiminto, ei-rahamääräiset mittarit, kustannustietoisuus

Table of Contents

Table of Figures

1. INTRODUCTION

1.1 Motivation for the study

The management accounting has gone through quite significant changes during the last few decades (Burns & Baldvinsdottir, 2005). Particularly since the widely recognized publication of "Relevance Lost –The Rise and Fall of Management Accounting" by Johnson and Kaplan (1987), practitioners and academics have focused to a greater extent on developing more sophisticated and up to date management accounting techniques in order to meet the requirements of changed business environment (Burns & Vaivio, 2001, p. 389). Consequently, a considerable number of new management accounting innovations like activity-based costing (ABC), balanced scorecard (BSC) and target costing were developed and introduced in the 90s (Partanen, 2001). However, the new fundamental challenges have emerged concerning the way, how these advanced information technologies can be most efficiently utilized (Burns & Vaivio, 2001, pp. 390-391).

This new management accounting 'crisis' has basically opened up a revolutionary view on management accounting, which goes beyond merely the management accounting techniques and systems. In addition to developing innovative tools, the emphasis should be increasingly directed to redefining the practical processes and roles of management accountants. (Järvenpää, 2002) Intensified competition, globalization, new managerial philosophies, increased business complexity, changing market conditions and organizational redesign are the most frequently cited reasons for this progress (e.g. Granlund & Lukka, 1998a; Järvenpää, 1998; Burns & Baldvinsdottir, 2005).

Recent accounting literature has repeatedly argued that there is a strong need for management accountants to move away from the traditional roles of 'bean counters', 'business historians' and 'watchdogs' towards more business-oriented functioning (e.g. Granlund & Lukka, 1998a; Burns & Baldvinsdottir, 2005; Kaplan, 1995). Consequently, it would appear that management accounting in the 21st century is considerably less devoted to routine financial analysis, transaction processing, statutory reporting and all kinds of 'clerical-type' of accounting tasks. Thus, the contemporary management accountants should be more like 'true business partners' for the management and organizational 'change agents'. Along with the

extended job description, these management accounting professionals are nowadays more often called controllers. (e.g. Parker, 2002; Scapens et al., 2003; Järvenpää, 2002)

Although recent years have witnessed a flurry of normative academic papers concerning the redefined nature of controller function, the empirical evidence of the emergence and characteristics of this change is still relatively limited (Burns & Baldvinsdottir, 2005, pp. 725-726). Furthermore, Granlund and Lukka (1998a, pp. 201) share practically the same view regarding this neglected research field:

> *"A lot has recently been written, especially in the U.K. and the U.S.A., about the change in the accountants' role, arguing for the need for this change in a normative style. Empirical evidence on the realisation of these pleas, or on their emergence or change tendencies in practise, is so far scarce."*

Moreover, there is a quite established shared understanding among academics that management accounting is difficult and slow to change, despite the influence of considerable internal and external changes putting substantial pressure on accounting to change (Granlund, 2001). Therefore, we should always distinguish between normative claims of change and change as an evidenced empirical phenomenon. Hence, sometimes when the surface evidence indicates apparent change, the 'new' might just be merely a rearticulation of the old. (Burns & Vaivio, 2001, pp. 393) As a consequence, we should not take for granted the contemporary business-oriented role of controllers stated by normative literature either. Furthermore, we should also question whether the widely recognized driving forces behind this development towards progressive controller function are in line with practitioners' experiences. The present study will try to fill these gaps by comparing the empirical evidence from the field to the most recent academic researches on the contemporary controller function.

As already mentioned above, in the early 90s management accounting research concentrated mainly on the development of new techniques and information systems (Partanen, 2001). Subsequently, the focus of studies on management accounting has moved towards the different roles and various processes of controllers. However, very little effort has been put into analysis of what kind of personal knowledge and characteristics are required from a contemporary controller. (Pihlanto, 2000) Moreover, very few writings on controller function have been published, which take into consideration the intertwined nature of controller's profession. This study will examine controller function as a complex consisting of tools, processes, knowledge and roles of controller.

1.2 Purpose and scope of the study

This master's thesis aims to extend consciousness within the management accounting by empirically reviewing, how contemporary controllers are operating in the organizational reality. More specifically, the focus of the study is basically on examining whether the widely recognized normative literature is also reflected in the practical context. Far too often new innovative managerial fads turn out to be merely repackaging of conventional techniques. Therefore, the purpose is to concentrate more deeply on a single case company in order to enhance our understanding of the controller function in the exposed contemporary settings.

The present study is primarily inspired by the observed lack of empirical research on this topic. The limited number of empirical evidence on controllers' contemporary role is quite surprising, not least because academics have on the other hand paid substantial attention to the subject. However, it is quite obvious that the topic has relevance in practice too, especially now in the 21st century. This is predominantly due to increased automation and streamlining, which have substantially remoulded the job descriptions also within accounting departments. Hence, this study will give its best contribution to filling this neglected research field.

In addition, this master's thesis makes an effort to shed light on the main driving forces behind this normatively claimed management accounting transition. Once again, empirical evidence on these pressures is relatively scarce, while on the other hand academic writings have dealt with these forces quite intensively. Nevertheless, the main driving forces stated in literature are basically extremely vague organizational phenomena. Thus, the present study aims also to clarify, whether the practitioners share similar views on the key factors behind this academically argued change in a controller function.

There are basically three major issues the present study concentrates on:

1. How is a contemporary controller function operating in a multinational company; what are the roles, tools, processes and knowledge of present-day controllers?
2. How valid is the traditionally defined 'bean counter' concept in the contemporary organizational reality?
3. What are the main internal and external forces driving change towards contemporary controller and remoulding the classical view on management accounting practices?

The study framework (Figure 1) presents the key research questions and the purpose of the study rather straightforwardly. More generally speaking, this paper examines possible tensions between recent academic publications and empirical evidence from the field in relation to the nature of contemporary controller function and the key driving forces. To be more specific, this study considers the way, how e.g. business-orientation or 'provocative' non-financial measures are reflected in the practice. Moreover, the master's thesis seeks to explain whether e.g. globalization and intensified competition can be seen as actual reasons for remoulding controller function – or on the other hand, whether these driving forces are more like managerial fads to legitimate reorganizations.

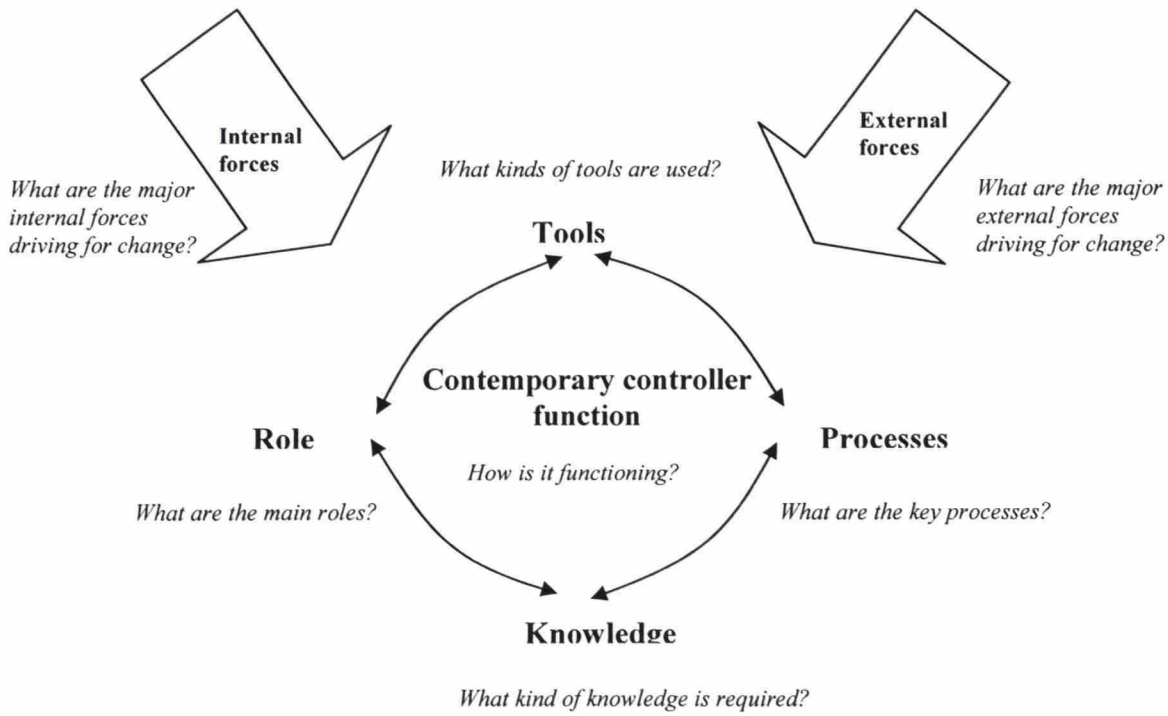

Figure 1: The study framework

The empirical part will be conducted in a large multinational company. The reason to investigate such an organization is twofold. First of all, a company of considerable size provides more extensive opportunities for empirical evidence, because there is greater number of controllers in different organizational levels available. Secondly, academic literature has been basically written having an eye on large international companies. Therefore, the main issues related to the study like business-orientation, cross-functionality and globalization emerge more frequently and extensively in a large multinational company.

The present study has central focus on a controller function as a four-dimensional complex. Most importantly, these four elements are regarded as intertwined; tools, processes, knowledge and roles together shape the controller function. However, a deep technical analysis of these components has been left outside this research. Moreover, the study's primary emphasis is on business controllers. Hence, other management accounting professionals such as CFOs are excluded from the study. Taking into account the main study objectives of examining the contemporary nature of controller function, the review of the topic is also limited to cover as up to date academic literature as possible. Finally, in order to stay in the area of management accounting, Financial Shared Services (FSS)[1] taking predominantly care of financial accounting in many companies, are left with minor attention.

1.3 Study outline

The rest of the study is organized as follows. In chapter two, the traditional features and characteristics of management accountants are briefly introduced. Furthermore, the main internal and external driving forces putting pressure on traditional 'bean counter' roles are discussed. The third chapter provides a theoretical review of the contemporary controller function. Moreover, the theoretical frameworks for analysing the nature of present-day controller function and the main factors driving this normatively claimed management accounting change are presented. Chapter four describes the methodology used in the study. Furthermore, the case company is shortly introduced. In chapter five, the focus is shifted towards the empirical reality. Subsequently, the empirical evidences on contemporary controller function and major forces remoulding the job description are analyzed. Chapter six connects the field observations back with the theoretical starting point. Most interesting empirical findings are reflected through the most recent management accounting theory. Finally, chapter seven summarizes the study and presents conclusions and discussion. In addition, limitations of the study outcomes and suggestions for further research are presented.

[1] Many companies have centralized their routine accounting tasks in order to utilize these released resources more efficiently (see Malcolm, 1999; Jarman, 1998 or Cecil, 2000).

2. FROM 'BEAN COUNTERS' TOWARDS CONTEMPORARY CONTROLLERS

2.1 Traditional view on management accountant function

Pursuant to the conservative view, the main tasks of management accounting professionals are strongly linked to gathering and producing data for managerial purposes. Thus, the focus has traditionally been on registration duties, and the information utilization has been left solely to managers. Consequently, the typical practices of classical management accountants have been related to statutory reporting, transaction processing, budget preparation and routine monitoring. (e.g. Granlund & Lukka, 1997; Burns & Baldvinsdottir, 2005; Baxter & Chua, 2006) Moreover, accounting has conventionally been organized as a centralized staff function, which has been reflected in the lack of cross-functional processes among traditional accounting professionals. Hence, the management accountants have worked fairly distant from business units and operations. (Granlund & Lukka, 1998a, pp. 194)

Simultaneously, management accountants have classically concentrated on the inner processes of organizations. This has basically been reflected in more intense co-operation with production personnel than marketing and sales people. Therefore, customer focus and market orientation have been traditionally scarce among management accountants. (Granlund & Lukka, 1998a, pp. 195) Furthermore, the skills and knowledge required from management accounting professionals have been understandably congruent with the main tasks and processes (Partanen, 2001). Thus, numerical preciseness and formality have been regarded as admired features for conventional management accountants. In addition, silence and withdrawal have been typical characteristics of management accounting personnel. (Granlund & Lukka, 1997; 1998a)

Traditional management accounting tools and systems have been largely used in a diagnostic way (Simons, 1995). Hence, the management accounting has mainly focused on monitoring the financial outcomes against the predetermined standards (Vaivio, 2001). Variance analysis is an applicable example of these kind of tools widely utilized among classical management accountants (Burns & Baldvinsdottir, 2005). Consequently, these past-oriented methods have not required sophisticated communicative and team-work skills from management

accountants (Partanen, 2001). Moreover, the financial measures have been rather dominant in traditional management accounting practices. Thus, the lack of non-financials in the performance evaluation has basically limited the capabilities of knowledge creation in the organizations. (Vaivio, 2001)

A traditional management accountant has been largely called 'bean counter', 'watchdog' or 'historian', which quite aptly illustrates the mechanical and past-oriented nature of their duties (e.g. Friedman & Lyne, 1997; Pihlanto, 2000; Granlund & Lukka, 1997). 'Bean counter' is introverted by nature, and his or her history recording type of tasks are usually recognized only in the accounting department (Pihlanto, 2000).

2.2 Key forces driving change towards contemporary controllers

There is a quite considerable consensus within the academics regarding to the main driving forces behind the transition from 'bean counters' to contemporary controllers (e.g. see Granlund & Lukka, 1997; Järvenpää, 2001; Burns & Scapens, 2000a). However, theorization and justification of the emergence and characteristics of the change is relatively limited (Burns & Baldvinsdottir, 2005, pp. 726). Moreover, this change in management accountants' job descriptions is a complex and contextual process. Thus, it should not be studied in isolation to its organizational, social and institutional context (Järvenpää, 2002; Scapens, 1994). Therefore, economic, structural and institutional pressures alike have an extremely important role to play in analysing the driving forces of modern organizations (e.g. Granlund & Lukka, 1998b; Carruthers, 1995; Scapens, 2006). Consequently, this study ended up employing both technical and institutional[2] 'lenses' in order to make sense of such complexities in internal and external dynamics. Nevertheless, these technical and institutional frameworks are not the core focus of the study and hence, a profound analysis of the theories is excluded.

The transition towards present-day controller always necessitates the change in organizational culture too (Järvenpää, 2002). Moreover, it has been widely recognized among academics that management accounting is not operating or changing irrespective of the organization (e.g. see

[2] Business environment consists of technical and institutional environments, which both place different pressures on organizations (e.g. see Meyer & Rowan, 1977).

Burns & Baldvinsdottir, 2005; Järvenpää, 2002). Consequently, a management accounting culture is part of the organizational culture. Most importantly, the expectations and attitudes of the organization towards accounting function are central elements of the management accounting culture. Thus, these cultures are partly intertwined. Finally, the change in controller function can take place in two different ways, either the driving forces affect directly management accounting culture or the pressures remould the expectations of organization towards accounting culture. (Järvenpää, 2002)

2.2.1 Technical perspective on driving forces

There is clear evidence that the change towards contemporary controller function consists of internal and external factors alike (Järvenpää, 2002, pp. 303). Consistently, the technical perspective comprises of both economic and structural pressures. Hence, the factors emanating from the internal and external business environments alike are included in the technical view. (Scapens, 2006) According to Järvenpää (2002), the external forces are usually only background motivators, while the internal drivers are the real catalysts for the change. On the other hand, Scapens (2006) states that the external factors can have a straight impact on organizations' structures and operations. Altogether, this difference in opinions among academics is mainly due to the way, how people define the cause-effect relationships between external and internal factors.

Economic pressures

The management accounting culture is in transition, which is primarily as a consequence of strong *globalization* trend (Granlund & Lukka, 1997, pp. 213). Companies are nowadays competing in an increasingly international environment. Furthermore, the number of multinational companies operating in a global competitive environment is constantly growing. In addition, *deregulation* has also expanded the markets fairly significantly. Due to these quite dramatically *intensified competitive pressures*, companies are forced to critically reconsider their operations including management accounting procedures in order to be successful or even to survive. (e.g. see Nixon & Burns, 2005; Burns & Baldvinsdottir, 2005) Consequently, the role of management accountants is facing considerable pressures too; how does the traditional 'bean counter' fit to the changed environment. Moreover, traditional communication patterns and intraorganizational relationships become increasingly challenged

too in response to economic pressures. (Granlund & Lukka, 1998a) Finally, globalization has also intensified foreign listings, which has further strengthened the trend towards increased disclosure requirements. (Järvenpää, 2002)

The rapid expansion of *advanced production and information technologies* is also remoulding the traditional management accountant function (e.g. see Cooper et al., 1995; Banerjee & Kane, 1996). Importantly, management accounting systems shape the values of organizations by directing the attention of personnel to certain desired measures. Rolling forecasts have for instance moved the focus away from past-orientation. Consequently, proactive measures are nowadays more widely recognized in the organizations. (Järvenpää, 2002, pp. 309-310) Moreover, rolling forecasts and other future-oriented tools are putting considerable pressures on business units to participate more actively in management accounting processes (Granlund & Lukka, 1997). Extensive number of companies have also utilized the potential of modern electronic data processing technology by implementing data-warehouse types of integrated information systems (such as SAP R/3). It is widely argued that such systems lead to the standardization of data collection and thus, the conservative roles of management accountants face considerable pressures. Hence, the processes such as information production and routine reporting become increasingly automatized, which basically shift management accountants towards analysis and decision support duties. (Granlund & Lukka, 1998b, pp. 160)

Although the technological development has been rapid recently and flurry of new techniques have been introduced such as ABC and BSC, these modern techniques are not being used as widely as their advocates might have expected (Burns & Scapens, 2000a). Furthermore, various evidences suggest that the traditional management accounting tools remain still popular and are widely used among practitioners (e.g. Granlund & Malmi, 2002; Burns & Yazdifar, 2001). However, according to quite extensive empirical study carried out by Friedman & Lyne (1997), the new management accounting techniques are important forces driving change towards contemporary controller function. On the other hand, they strongly believe that in the long-run the 'bean counter' image can only be dispelled, if management accountants continually adapt to an ever-changing environment by constantly introducing and developing new techniques.

Structural pressures

According to Järvenpää (2002), the structural pressures are the most powerful driving forces towards contemporary controller function. Structural forces include different kinds of reorganizations, but the recent tendency has been towards an increasing *decentralization* of management accounting. The decentralization brings management accountants closer to actual business operations, which enhance cross-functional communication and business-orientation in management accounting practices (e.g. see Burns & Scapens, 2000a; Partanen, 2001). This prevailing trend can be seen as a natural response to more complex business environment, which requires conventional 'bean counters' to expand their territory from centralized staff function (Granlund & Lukka, 1998a). Consequently, business controllers operating within the line organization have increasingly emerged and remoulded the traditional view on management accountants. Finally, it is widely believed that this decentralization boost the appreciation of management accounting in general. (e.g. see Granlund & Lukka, 1998a; Burns & Scapens, 2000a)

Management accountants have conservatively directed their focus on the inner processes of organizations, which has practically meant that cooperation with production has been much extensive than with marketing and sales (Granlund & Lukka, 1998b, pp. 195). However, plenty of companies have recently changed their structure from functionally organized to a *process-based matrix form*. This tendency is naturally reflected in the role of accounting function too, which has moved away from being solely a separate support function to become an integral part of the processes. (Burns & Scapens, 2000a) Consequently, management accountants get closer to sales and marketing personnel, which substantially amplify market and customer orientation among management accounting (Granlund & Lukka, 1998b, pp. 194-195). However, this matrix structure brings along significant challenges as well, because divisional controllers for example have at least twofold responsibilities in the matrix reporting. In addition to supporting the divisional decision-making, they should still sustain objectivity in reporting to corporate-level executives. (Järvenpää, 2002, pp. 30-31)

2.2.2 Institutional perspective on driving forces

While above mentioned economic-rational factors are undoubtedly important in driving management accountants' role change, they do not always offer however a complete and

sufficient explanation for organizational behavioural. Thus, an institutional perspective broadens the scope of investigation considerably. The institutional theory considers management accounting practices as institutionalized routines, which are instrumental in legitimating organizational action and surviving in competition. Most importantly, staying in the business requires more than just effective operations; organizations must comply with various social norms in a generally accepted way. Moreover, these institutionalized routines with established rules and procedures enhance understanding and facilitate decision-making in a complex and uncertain environment. Most importantly, a rational image of organizational practices is pursued to be provided to stakeholders in order to gain legitimacy for their actions. (e.g. see Meyer & Rowan, 1977; Scott, 1987; Scapens, 1994; Burns & Baldvinsdottir, 2005)

Furthermore, it is widely acknowledged among academics that examining management accounting change is equivalent to reviewing institutional change. Hence, technical pressures should be complemented with institutional pressures in order to perceive more comprehensive picture of the management accounting transition. (e.g. Scapens, 1994; Järvenpää, 2002) Consequently, the widely-recognized classification of institutional pressures presented by DiMaggio & Powell (1983) is utilized in the study to structure institutional driving forces. This grouping divides institutional forces into three different categories – coercive, normative and mimetic pressures. Interestingly, organizations are becoming more and more similar to each other due to this institutional isomorphism. (DiMaggio & Powell, 1983) Thus, it is worth noticing that institutional pressures per se do not necessarily initiate the process towards contemporary controllers, but they have considerable role to play in fortifying and accelerating this change.

However, the difference between technical and institutional pressures is not always distinctive in practice, but they might get confused due to their interlinked relationship (Carruthers, 1995). For instance, the implementation of ABC might seem to be an economically rational decision, because it might lead to considerably increased profitability – at least according to consultants (Granlund & Lukka, 1998b, pp. 159). Nevertheless, there are also good reasons to believe that a company might want to implement ABC, because the leading companies in their industry have already adopted it (Malmi, 1997). Moreover, a company might merely aim for a modern image by implementing ABC, which would further legitimate their operations from stakeholders' standpoint (DiMaggio & Powell, 1983).

Coercive pressures

Coercive isomorphism arises largely as a consequence of both formal and informal pressures existing outside organizations like juridical or technical norms. Moreover, the expectations of society have significant effect on the emergence of coercive isomorphism. Consequently, coercive pressures reflect the enforcing regulative aspects of certain institutions. The ideological basis lies in human behavioural theory, which states that human behaviour is in social arenas controlled by monitoring, rule setting and sanctioning activities. Hence, the behaviour of individuals and organizations is guided and constrained by different institutional forces. (e.g. DiMaggio & Powell, 1983; Scott, 1995, Järvenpää, 2002)

One of the most essential coercive pressures emanates from *international standardization of financial accounting legislation* (Granlund & Lukka, 1998b, pp. 162). The adoption of International Financial Reporting Standards (IFRS) has for instance put a considerable pressure on management accounting recently (Järvenpää, 2002). It is worth noticing that the dramatic changes in financial accounting environment are also reflected in the management accounting. This is due to the closer integration between financial and management accounting systems, and the harmonization of accounting practices in general. (Granlund & Lukka, 1998a, pp. 195-196) Moreover, the globalization has led to intensified *foreign listings*, which considerably increase the reporting and disclosure requirements. (Järvenpää, 2002) Hence, management accountants' traditional role of producing past-oriented routine reports is put under scrutiny.

Undoubtedly, transnational institutions such as European Union (EU) and World Trade Organization (WTO) have an important role to play as change agents for economy-wide phenomena. However, these institutions do not usually have any direct impact on organizations' management accounting. Instead, they typically act as underlying forces, which set a frame for other forces lying closer to corporate practices. Multinational companies must comply with flurry of different *national legislations and institutions*, which unquestionably have some repercussions on their management accounting practices too. Nevertheless, the emergence of transnational institutions is constantly diminishing the relative importance of national institutions. (Granlund & Lukka, 1998b)

Corporate interdependences are also important sources of coercive isomorphism. Parent companies influence on their subsidiaries by setting detailed reporting standards and requiring

them to use similar accounting principles. Moreover, headquarters can compel business units to employ certain management accounting practices. (Järvenpää, 2002) In addition, companies may require certain accounting procedures from their suppliers (Granlund & Lukka, 1998b). Hence, sources of coercive pressures on management accounting practices might emerge always, when one company is dependent on another (DiMaggio & Powell, 1983). However, especially multinational companies consider these pressures to be extremely essential in monitoring and co-ordinating their subsidiaries in a global environment (Granlund & Lukka, 1998b, pp. 163).

Normative pressures

Normative pressures relate to social obligations and appropriate social conduct in human behaviour. They are basically mediated by norms, values and roles, which people adopt in their numerous domains of social conduct. (DiMaggio & Powell, 1983; Scott, 1995) In other words, normative pressures are originated from various expectations by stakeholders towards organizational action (Järvenpää, 2002, pp. 96). The essential difference between normative and coercive pressures lies in the fact that the latter are formally more compelling by nature than the former (DiMaggio & Powell, 1983; Scott, 1995).

One of the most evident forms of normative pressures is *professionalization of management accountants*. Professionals are putting considerable effort on protecting collectively their vocational territories and autonomy in relation to other professions, managers and organizations. (Järvenpää, 2002) Furthermore, professionals do not imply similarity only within the organization, but they exhibit much resemblance also to their counterparts in other organizations (Granlund & Lukka, 1998b). Professional institutions such as the Chartered Institute of Management Accountants (CIMA) are constantly providing instructions and guidance to its members, which naturally have significant repercussions on management accounting practices. Most importantly, these vocational organizations facilitate networking of management accountants, which considerably accelerate the information spread of new procedures and managerial techniques. (Järvenpää, 2002, pp. 95)

Another significant source of normative isomorphism is *university education* (DiMaggio & Powell, 1983). There are inevitably some distinctive characteristics in the teaching programs of different countries, but textbooks and case materials are however global in general. Hence, it is quite self-explanatory that the universities have a substantial role to play in creating

organizational norms, while they embed formal educational foundation to management accounting professionals. (Granlund & Lukka, 1998b) Moreover, the *recruitment policy* might have major implications for management accounting. While organizations are employing new personnel, applicant's personal values and norms are implicitly contrasted with organizational expectations. Thus, recruiting might be quite powerful form of normative isomorphism. (Järvenpää, 2002)

Finally, *management accountants have moral obligation to comply with the expectations of supervisors,* which undoubtedly put normative pressure on management accountant function to change. Management accountants' role develops practically in line with managers' expectations of their contribution to organization. (Järvenpää, 2002) Therefore, general management principles and trends are reflected in managers' expectations towards management accounting practice. This partially shed light on why process and customer orientation has gained considerable ground among management accountants too. (Granlund & Lukka, 1998b)

Mimetic pressures

Mimetic processes are grounded on the behavioural regularity that organizations under conditions of uncertainty tend to imitate from each other, especially from successful organizations that have good reputations (Järvenpää, 2002, pp. 95; O'Neill et al., 1998). Generally speaking, mimetic pressures are related to cognitive and socially constructed side of human behaviour (Granlund & Lukka, 1998b, pp. 167). Consequently, the identities of individuals and organizations are continuously surrounded by a net of competing modes of social behavioural, of which the most predominant and successful alternatives are usually the ones mimicked and adopted (O'Neill et al., 1998). Moreover, imitating others is classically considered as an efficient strategy for social conduct (DiMaggio & Powell, 1983; Scott, 1995). So to sum up, mimetic processes suggest that organizations aim to imitate the operating modes, which are collectively believed to be rational and appreciated (Järvenpää, 2002). The motive for such imitating is to gain as much legitimacy for the organizational actions as possible from the stakeholders in their operating environment. (DiMaggio & Powell, 1983; Järvenpää, 2002)

As presented above, *imitation of leading companies' practices* (benchmarking) is probably the most widely-recognized mimetic pressures (e.g. see O'Neill et al., 1998; Granlund &

Lukka, 1998b). Benchmarking as a mimetic pressure is usually as a consequence of new management accounting tools or innovative techniques gaining considerable ground among organizations (Granlund & Lukka, 1998b, pp. 167). For instance, ABC or a business-oriented role of management accountant has gained the image of being modern, widely utilized and even strategic resource for companies. Therefore, the mimetic pressures to adopt such techniques are substantial – or at least practically all managers would like to declare that they are applying these appreciated techniques. (see Malmi, 1997: Granlund & Lukka, 1998b, pp. 167-168)

Moreover, *global consultancy industry* supports aggressively mimetic processes and the trend of isomorphism in general by vigorously pushing their solutions for current managerial problems. Consulting activities are practically grounded on the way, how products are sold and marketed. They provide solutions to current managerial challenges and uncertainties by introducing simplified and commercialized ideas, which are promoted as new and revolutionary. (Granlund & Lukka, 1998b) Consequently, management accounting practices are also strongly affected by these package solutions offered by consultants. This domino effect is further strengthened by benchmarking, which put considerable mimetic pressure on organizations to adopt similar package solutions than most companies already have. (e.g. see Järvenpää, 2002: Malmi, 1997) However, these managerial fads driven by consultancy industry should be put under scrutiny; is it really something new and innovative or is it just a modest repackaging of old and conventional (Burns & Vaivio, 2001). On the other hand, it cannot be claimed that reinvention of useful ideas or managerial fads in general would necessarily be harmful to organizations (Granlund & Lukka, 1998b, pp. 167; Malmi, 1999). On the contrary, organizations seem to make rational modifications to managerial fashions in an implementation phase, which force people to critically question the current practices and core assumptions behind them (Malmi, 1999, pp. 668).

Finally, *the need for management accountant function to gain legitimacy from other stakeholders* can also be considered as an imitative driving force as such. The basis of legitimacy may lie in notion that management accounting should develop and progress its practices continuously. Therefore, the adoption of most up-to-date tools and techniques is often strongly related to gaining legitimacy. (Järvenpää, 2002) Similarly, executives are eager to say that they use modern-day practices and systems in their daily operations, even if that would not be the case exactly (Granlund & Lukka, 1998b).

3. CONTEMPORARY VIEW ON CONTROLLER FUNCTION

Above the study has discussed the core nature and dynamics of management accounting change in general and moreover, reviewed the key forces driving change towards contemporary controller function. Consequently, it has become relatively obvious that the change in controller function goes considerably beyond merely technical innovations and extensions (Järvenpää, 2002, pp. 24). New technical tools and information systems do not add substantial value to the decision-making process per se, but the efficient utilization of such techniques and produced information is a vital condition for effective controller function. Hence, humane aspects are gaining increasing ground among management accounting change. (Partanen, 2001) Instead of passive monitoring and registration, a contemporary controller should participate more actively in real business by operating much closer to product stream. However, these new and more business-oriented processes of controllers require naturally change in their roles and knowledge too. (Järvenpää, 2002) Thus, an influential change in controller function basically necessities the intertwined development of processes, tools, roles and knowledge alike.

3.1 Core processes of contemporary controllers

First of all, the processes of routine accounting remain to have top priority in organizations. In order controllers to expand their activities closer to business operations, controller function must first gain credibility in the eyes of stakeholders by providing reliable routine accounting. (Järvenpää, 2002, pp. 22-23) Although several large companies have recently moved their repetitive accounting processes to separate Financial Shared Services (FSS), the production of correct and trustworthy accounting information continues to be associated with responsibilities of controller function (Malcolm, 1999; Cecil, 2000). Thus, the reliability of routine accounting processes has a favourable effect on controller function's image and prestige, and hence it also facilitates controllers' role expansion (Järvenpää, 2002).

3.1.1 Co-operative processes with business managers within the product stream

There is a relatively strong consensus of opinion among academics that the contemporary controller function should move towards more business-oriented processes (e.g. see Järvenpää, 2002; Granlund & Lukka, 1998a). Many companies have abandoned the functional organization structure, which has substantially facilitated the emergence of 'hybrid' accountants. Consequently, the contemporary controller function is becoming increasingly decentralized, while companies are favouring matrix organization forms to a greater extent (Burns & Scapens, 2000a). 'Hybrid' controller is someone, who has both accounting knowledge and deep understanding of business operations and commercial business models (Burns & Baldvinsdottir, 2005; Burns & Scapens, 2000a). These contemporary management accountants are operating within the multifunctional processes with close co-operation with product stream leaders (Burns & Baldvinsdottir, 2005).

The intensified process thinking has considerably facilitated the adoption of more sophisticated business-oriented management accounting practices (Burns & Baldvinsdottir, 2005). As already briefly discussed, the transition from a rather fattish and bureaucratic organizational structures to one with more participation, streamlining and process-orientation became relatively popular and well-published business trend in the 1990s (Pettigrew & Massini, 2003). In addition to structural forces such as emergence of matrix structures and decentralization of management accountant function, mimetic and normative pressures alike have played significant roles in promoting and boosting the process-orientation in companies. More specifically, benchmarking practices, a guidance of external consultants and an education of business schools have pushed controller function towards more business-oriented ways of working. (Järvenpää, 2002; Burns & Baldvinsdottir, 2005) Subsequently, it is worthwhile to consider more profoundly, what are the concrete advantages of more business-oriented controller function.

The relatively widely recognized definition of business-orientation in management accounting is related to the intention of adding more value to the organization, especially to decision-making, controlling and finally to profitability by the following means and processes (Järvenpää, 2002):

- controller function is able to provide management with more relevant and higher quality information
- controllers are considerably more acquainted with business contents (customers, markets, products, processes etc.)
- controller function can participate more actively in management by analyzing, interpreting and communicating information
- controllers have much extensive opportunities to develop new innovative management tools and control systems

The core processes of contemporary 'hybrid' controllers can be basically divided into two relatively broad categories. Firstly, contemporary controllers should be involved in product stream related strategic affairs, thus working in close relationship with product stream manager. Secondly, 'hybrid' accountants should also provide assistance in day-to-day operational matters. (Burns & Baldvinsdottir, 2005) Consequently, contemporary controllers should ideally be members of the divisional or profit-centre management teams in order to be able to act as a strategic advisor as well (Granlund & Lukka, 1998a, pp. 197-198). Moreover, the intensive co-operation and interchange with process stream managers considerably facilitates the production of more value added information for managerial decision-making purposes. Most importantly, 'hybrid' controllers are hence capable of bringing out the exact sort of information that managers actually prioritize. (Burns & Baldvinsdottir, 2005)

Gaining and maintaining the understanding of businesses' earning-logics is undoubtedly one of the most essential conditions for contemporary controller (Vaivio & Kokko, 2006, pp. 16-17). The general management accounting trend has been moving away from inner process to emphasize more on outside environments of companies. Hence, the co-operation between management accountants and marketing & sales personnel has intensified quite drastically. This actually reflects the more general managerial trend of customer-orientation. However, controller function should not be regarded as a separate staff function anymore, but the focus should be directed increasingly towards businesses and operating environment. Thus, the core processes of contemporary controllers should strongly reflect the customer, competitor and general markets perspectives. (Granlund & Lukka, 1998a) For instance, mapping the basic business causalities and relationships is a vital precondition for successful and effective analysis and interpretation of performance data (Vaivio & Kokko, 2006). Hence, instead of

merely producing the bulk of monthly performance figures, contemporary controllers should be able to spot the ones with considerable need for improvement (Burns & Baldvinsdottir, 2005).

Finally, in spite of the quite dramatic broadening of management accountants' job descriptions, the traditional duties related to 'watchdog' have not been totally disappeared (Granlund & Lukka, 1997). However, the core nature of 'watchdog' duties is nowadays built on social interaction, unofficial cross-functional networks and intense communication. Consequently, the contemporary controller is more engaged in social networks and intuitive methods in order to develop some cognitive and interpretive frames for rapid and effective information processing and analysis. (Vaivio & Kokko, 2006) Hence, the focus of contemporary processes lies in interpersonal exchanges, future-orientation and profound knowledge of business and markets.

3.1.2 Processes instilling commercial thinking into organization

Along with the expanded adoption of process ways of working, the need for reconsidering the accountabilities in the organization has emerged. Most importantly, product stream leaders have become responsible for overall stream performance, which basically implies that they are now more empowered in terms of planning and managing their own budgets and forecasts. (Burns & Baldvinsdottir, 2005) Consequently, contemporary controller has at this point a significant role to play in instilling more commercial awareness amongst business managers (Scapens et al., 2003). Therefore, 'hybrid' controllers are at the core of the skills transfer; they pursue improving their own business understanding in the first place, but simultaneously encourage business managers to increase their financial awareness (Burns & Baldvinsdottir, 2005, pp. 740-742).

Most importantly, the commercial attitude instilled into business units by contemporary controllers has remoulded the traditional 'money does not matter' culture among business managers. Under these new circumstances, business managers are forced to give more serious consideration to cost management and customer value. (Burns & Baldvinsdottir, 2005, pp. 740-741) However, considerable technological developments have also essentially facilitated this skill transfer phenomenon. First of all, the information systems have become more

integrated and access to them is dispersed around the organization. Hence, the traditional division of duties between business managers and controllers has dramatically changed; individual managers have now greater responsibility for the information concerning their own area of activities. (Burns & Scapens, 2000a)

Although the decentring of accounting knowledge has been enabled by the availability of financial information at all levels in the organization, the effect of educational processes driven by contemporary controllers can not be underestimated either (Burns & Scapens, 2000a). Management accountants have strong expertise in information, not only in its production but also in its utilization; they have an ability to look beyond the figures by 'breaking down the numbers' (Burns & Baldvinsdottir, 2005). In the matrix organisation, contemporary controller has communication and reporting responsibilities both in the local part of the line organization and also in the accounting organization (Granlund & Lukka, 1998a, pp. 199). Hence, the 'hybrid' controller is able to provide rather extensive understanding of the business, and thus 'hybrid' is capable of advising on the main impacts and implications of different actions on the whole organization (Burns & Scapens, 2000a).

Companies are nowadays operating in an extremely intense competitive environment, which compel them constantly to reconsider their cost structure in order to stay competitive (Granlund & Lukka, 1998a, pp. 205-206). Consequently, it is crucial that everyone in the organization is aware of the consequences of their actions on company's profitability (Partanen, 2001, pp. 145). Hence, contemporary controllers are in a key position to instil cost-consciousness around the organization (Granlund & Lukka, 1998a). For instance, by operating in a close relationship with product stream, a controller is well-positioned to assist procurement purchasers to become more acquainted with cost management thinking. Thus, substantially more emphasis is placed on volumes, quality and timing of lots. (Partanen, 2001)

3.2 Main tools of present-day controllers

Since the critics towards the relevance of management accounting in the 1980s, a flurry of various management accounting techniques and tools have been developed (e.g. see Burns & Vaivio, 2001; Burns & Scapens, 2000a). However, the adoption of such modern systems has been relatively moderate, whereas the traditional tools continue to be widely utilized (e.g.

Järvenpää, 2002; Burns & Yazdifar, 2001). It has been widely recognized that management accounting practises are slow to change (e.g. see Scapens, 1994; Granlund, 2001). Moreover, the stability around management accounting practises can be basically explained by institutionalized routines and change resistance in general (Burns & Scapens, 2000b). Nevertheless, management accounting is changing and new practises are adopted, but rather than the change being necessarily in the type of management accounting techniques, it seems to be more like in the manner of how to utilize these traditional techniques (Burns & Scapens, 2000a). Hence, the primary preconditions for contemporary tools are adaptability and exploitability in the current organizational context. Consequently, contemporary controllers should be able to adapt the standard innovations such as ABC and BSC in a more customized way. (Partanen, 2001, pp. 221-235) Therefore, even companies with extensive utilization of traditional techniques might actually use these tools as an innovative and modern way in practice. Altogether, surveys usually shed light on solely what tools companies are nominally using, but most importantly they tell nothing about how these tools are actually used in practice. (Burns & Scapens, 2000a)

Consequently, the adoption of modern management accounting tools driven by institutional forces such as external consultants and mimetic behaviour do not comprise any intrinsic value as such (Partanen, 2001, pp. 222-224). For instance, the survey conducted by Friedman & Lyne (1995) indicated that companies are not experiencing equal benefits from similar innovations and thus, the importance of such tools is viewed completely differently among companies. Hence, contemporary controllers have a key role to play in implementation process; how the new innovations can be smoothly integrated in every-day practices and more importantly, how the implementation process can be most effectively utilized as an organizational learning project. As a result, contemporary controllers are not taking isms for granted, but new innovations are adapted to existing organizational know-how and cumulative learning. Thus, the implementation process of innovations per se can lead to knowledge creation and even externalization of implicit knowledge. (Partanen, 2001)

Although the adoption of feed-forward and strategy-led tools are fundamentally gaining increasing ground among practitioners, these techniques have been implemented to supplement rather than replace the traditional, more operations-led systems (Burns & Yazdifar, 2001, pp. 34). Consistently, according to Granlund & Lukka (1998b, pp. 169) appropriate systems are naturally helpful and even necessary in running the race, but

techniques per se do not bring you to win the race. Thus, management accounting systems do not make any significant competitive difference in the markets, but these systems strive to be efficient in supporting companies' operating activities (see Cooper et al., 1995; Granlund & Lukka, 1998b). As a result, contemporary controllers should prioritize management accounting system features such as functionality, flexibility, user-friendliness and adaptability to existing operations over purely technical sophistication (see Pierce & O'Dea, 2003; Järvenpää, 2002).

3.2.1 Non-financial measures stimulating knowledge creation

Traditional management accounting technology is facing considerable challenges in terms of knowledge creation. First of all, the financial orientation of conventional management accounting has limited the capability to penetrate more deeply into the underlying processes. Monetary aggregates concentrates on providing a compressed panorama upon the multitude of business phenomena and thus, they produce clarity by highlighting the financial surface. (Vaivio, 2001) Furthermore, the traditional management accounting is not putting adequate emphasis on interfunctional activities and corresponding local expertise (Vaivio, 2004, pp. 46). However, tacit knowledge[3] being at the core of knowledge creation is to be found beyond the uniform generality of financial surface in the rich involvement in the flow of events. (Vaivio, 2001, pp. 10) Consequently, a large body of literature has suggested that non-financial measures should be increasingly integrated into the management accounting practices (e.g. see Kaplan & Norton, 1992, Granlund & Lukka, 1998a).

According to study conducted by Järvenpää (2002), the enhanced business-orientation of contemporary controllers is considerably driven by more extensive utilization of non-financial measures. This is basically as a consequence of the notion that management accounting moves substantial closer to operational details due to non-financials. (e.g. Järvenpää, 2002, pp. 306-307; Vaivio, 2001, pp. 12-13) Hence, operational measures enable contemporary controllers to probe deeper into the organization's every-day practices than traditional financial measures. Consequently, more fundamental drivers of performance can be addressed. (Vaivio, 2001)

[3] Tacit knowledge is in a way silent understanding involved in taken for granted practices and routines. Organizational agents cannot usually recognize and explicitly articulate tacit knowledge, which is front-line competence tied to work-related special skills and know-how. (Nonaka, 1994)

Most importantly, non-financial measures do not produce consensually accepted neutral information, but on the contrary they provoke conflicts, resistance and critical questioning. 'Provocative' non-financials probe into organizational details, which rock the prevailing power structures and accountabilities (Vaivio, 2001). Moreover, the operational measures explore the how of ongoing action, whereas financial measurement reports only the economic consequences. Hence, non-financials bring into the light urgent local issues with potentially considerable financial repercussions. (Vaivio, 2004, pp. 58) By problematizing the locales' performance with operational measures, a financial performer might turn out to be a non-financial non-performer. Hence, reporting units become accountable for operational aspects too. Consequently, the cross-functional communication between contemporary controller and organizational agents intensifies, when business managers must offer explanations to why non-financial measures make their locale visible in a particular way. (Vaivio, 2001) Thus, the enhanced horizontal debate with conflicting arguments and emotive reactions substantially facilitates the process of turning locally stored knowledge into more explicit (Vaivio, 2004, pp. 60-61).

Finally, an effective and deliberated utilization of 'provocative' operational measures is paving the way for management accounting professionals to move towards contemporary change-agent controllers. By selectively mobilizing non-financials in critical functional interfaces with key local expertise, the change-agent controller is in a position to enhance knowledge creation and organizational learning. (Vaivio, 2004) Interestingly, these deep-probing interventions into the operations can be seen as interactive in nature (see Simons, 1995). Moreover, the contemporary controller should recognize that BSC can go far beyond its normative emphasis of solely monitoring the learning capability of organization and assisting in the strategy implementation; non-financial measures can have significant role to play also in the creation of new strategies. Hence, contemporary controllers should focus increasingly on discovering and mobilizing strategically relevant information deriving from the locales. (Vaivio, 2004, pp. 62-64) Most importantly, in the ideal situation both management accounting professionals and managers in the line organization are co-operatively involved in the development of non-financials. Consequently, these measures should reflect organization's true critical success factors. (Granlund & Lukka, 1998a, pp. 197)

3.2.2 Enterprise resource planning systems facilitating shift towards more analytical tasks

Recently the most sophisticated corporate IT solutions have emerged in the form of enterprise resource planning systems (ERPS). Although, the number of adopters for these integrated information systems has increased quite drastically, the real consequences of ERPS for management accounting practices are however still lacking considerable empirical evidence. (Granlund & Malmi, 2002, pp. 300) In theory, these systems should lead to standardization of data collection format and reporting patterns in the production of information. Furthermore, ERPS should open up completely new opportunities to customize and tailor accounting information to various local decision-making situations. (Granlund & Lukka, 1998b, pp. 160) Nevertheless, the study conducted by Granlund & Malmi (2002) interestingly pointed out that so far ERPS seem to have little effect on both management accounting methods and managerial controls used. Most importantly, this relatively minor impact of ERPS on management accounting practice can be explained with the longitudinal and complex nature of implementation process. Hence, the value-adding features related to management accounting are not understandably prioritized in the first-phase of process. Consequently, in most of the cases both advanced techniques such as ABC and BSC, and also more conventional processes like annual budgeting are operated in separate systems. Moreover, the stability around management accounting practices and institutionalized routines may have also inhibited and affected the change (see Granlund 2001; Burns & Scapens, 2000b).

However, the adoption of ERPS has in some cases remoulded the traditional job description of management accounting professionals (Granlund & Malmi, 2002). Generally speaking, enterprise resource planning systems have shifted the focus away from routine reporting tasks towards more analysis and real decision support (e.g. Granlund & Lukka, 1998a; Granlund & Malmi, 2002). More specifically, the data integration has lead to considerable decrease in multiple data entries, and also the effort put on consolidation has reduced. Thus, ERPS has in that sense facilitated controllers' more intense participation in business support. Moreover, even though the core content of the data might remain rather unchanged under ERPS, the drill-in potential and considerably improved organization-wide access to the data are major advantages of integrated systems. (Granlund & Malmi, 2002, pp. 307-311)

The study carried out by Granlund & Malmi (2002) places the significance of innovations in the management accounting change under scrutiny. Moreover, Burns & Baldvinsdottir (2005,

pp. 748) found coherent empirical evidence in their longitudinal case study; the management accounting change does not necessarily entail any mobilization of modern techniques. Their study presented a rich description of the controller's role change towards increased business-orientation, but compared to many other congruent change studies there was no adoption of new tools involved in the change (e.g. see Friedman & Lyne, 1997; Järvenpää, 2002). However, one must not take the minor impact of ERPS on management accounting practice for granted. Taking into account the nature of both ERPS and management accounting, more evident practical consequences could be materialized not until later in the future. (Granlund & Malmi, 2002) Furthermore, contemporary controllers can contribute to the relevance of ERPS in management accounting practice by focusing on developing more user-friendly functionalities. Hence, the integration of more sophisticated and currently stand-alone techniques such as ABC into ERPS might gain more ground in the near future. (see Hyvönen, 2000; Granlund & Malmi, 2002)

3.2.3 Narrowing the information gaps between preparers and users

The importance of information user perceptions has been widely recognized in the management information system (MIS) literature. Most importantly, the significance to the users has been considered as the main criterion for evaluating the effectiveness of an information system. (Pierce & O'Dea, 2003) Moreover, many academic studies have recently emphasized the service role of controllers, which highlights the duties of satisfying managers' information needs (e.g. see Burns & Baldvinsdottir, 2005; Granlund & Lukka, 1998a, Burns & Scapens, 2000a). However, it has been acknowledged that designers and users of information systems have fundamentally different motivations and attitudes (Newman & Robey, 1992). Preparers basically consider that the success of MIS is directly linked to technical validity and functionality. On the other hand, the system is successful from the user's perspective when it enhances job performance and improves organizational validity. (Shields, 1995) Consistent with the prior literature of MIS, the study conducted by Pierce & O'Dea (2003, pp. 287) found clear evidence of considerable differences between the perceptions of managers and management accountants concerning the usefulness of information.

Importantly, the information produced by controllers lacks too often user-relevance and organizational validity. Managers have often highlighted the deficit of timeliness in the information provision, which is largely a consequence of excessive preoccupation with accuracy. Moreover, the scarcity of flexibility and the overemphasis on narrow information set together with the shortage of user-friendly formats in reporting were repeated to build the gap between managers and controllers. (Pierce & O'Dea, 2003, pp. 282) Interestingly, some of the most recent empirical studies have on the contrary brought into the light field observations of a broad-minded business-oriented controller with central focus on drawing the big financial picture (e.g. see Vaivio & Kokko, 2006, pp. 30; Burns & Baldvinsdottir, 2005). Hence, it is worth considering whether managers are expecting far more dramatic changes in management accounting practices than the recent evidences from the field would suggest.

Finally, managers are requiring specified expertise from the contemporary controllers in order to fill the information gap in the future. Firstly, a profound technical understanding is necessitated from management accounting professionals to be able to adapt information for various needs. Secondly, an extensive knowledge of business functions is required in order to be capable of developing MIS in a way, which takes into account the operational needs of production and marketing too. Finally, with the aim of narrowing the preparer-user information gap, contemporary controllers must possess a well-developed set of social and interpersonal skills. Continuous interaction between controller and manager is the only means to actively share the views on information requirements. (Pierce & O'Dea, 2003, pp. 286-287)

3.3 Required knowledge of contemporary controllers

The activities of contemporary controller are directed outside the accounting department to business units, product streams and even customers. By operating more closely to every-day business, a controller is in a position to instil economic viewpoint - cost consciousness and efficiency thinking – for the decision-making of business managers. (e.g. see Pihlanto, 2000, pp. 5; Granlund & Lukka, 1998a) Moreover, the contemporary controller can substantially facilitate organizational learning by probing deep into operational details with non-financials (Vaivio, 2004). However, the prescriptions for controllers to become internal business consultants and change agents have not been matched with corresponding indications of required competences to fulfil the expectations of such advanced roles (Coad, 1999, pp. 109).

The magnitude of individual characters in management accounting practices has not been widely-recognized until relatively recently (e.g. see Pihlanto, 2000; Järvenpää, 1998). Furthermore, the changes in organization's operating environment constantly remould the requirements of individual knowledge and skills too (Järvenpää, 2002, pp. 38-40). Consequently, the competences of contemporary controller must go far beyond solely accounting knowledge, although the know-how related to traditional financial analysis still remains important (Granlund & Lukka, 1998b, pp. 164). Finally, it is worth noticing that personality straits strongly tied up with individual skills and knowledge, also contribute to the emergence of more sophisticated roles for management accounting professionals (see Järvenpää, 2002, pp. 38-39; Pihlanto, 2000, pp. 19).

3.3.1 Learning goal orientation over performance goal orientation

The study conducted by Coad (1999) presents strong argument that management accountants should possess or at least have a capability to develop a learning goal orientation in order to meet the requirements of contemporary controller function. The research basically combines some core elements from both accounting theory and educational psychology. Consequently, the main underlying assumption in the study is to divide personal objectives into performance goals and learning goals. Individuals with a performance goal orientation are concerned with achieving positive evaluations, showing their capability to succeed and outperforming others. Moreover, they believe that their competences are fixed and unchangeable, which results in reluctance to learn and experiment new things. On the contrary, individuals with a learning goal orientation concentrate more on increasing their abilities. They are curious with strong willingness to go for challenging tasks in order to learn. (Coad, 1999)

Most importantly, the individuals with learning orientation are more likely to involve themselves in co-operation with business managers, initiate and actively participate in change processes and thus fit the notion of future-oriented controller (Coad, 1999, pp. 126-128). Consistently, Granlund & Lukka (1998b, pp. 164) named fluent communication skills and an ability to run change projects as the main requirements from business-oriented controllers. Also the observations from the study carried out by Vaivio & Kokko (2006, pp. 30) were practically in line with these perceptions; they found socially active, articulate and engaged agent relying on multiple informal networks and relationships. Moreover, the survey

performed by Burns & Yazdifar (2001, pp. 35) highlighted the skills in IT and systems, change management and strategic thinking to be increasingly required from future controllers.

On the other hand, the individuals reflecting performance orientation as their prevailing characteristics are directed increasingly towards conventional processes and roles of management accounting. Transactional leadership styles such as management by exception are strongly encouraging the performance goal orientation by emphasizing the professional independence of controllers. (Coad, 1999) Not surprisingly, withdrawal working methods combined with unsocial personal features are widely-recognized characteristics of past-oriented 'bean counter' (e.g. see Granlund & Lukka, 1998a; Vaivio & Kokko, 2006; Friedman & Lyne, 1997). Hence, contemporary controllers are required to possess knowledge far beyond traditional variance analysis – interpersonal skills are necessitated in the process of interpreting figures by looking around the organization (see Vaivio & Kokko, 2006).

3.3.2 Analytical skills combined with management-oriented broad-mindedness

According to a bunch of prior studies, the capability to bring economic perspective to business context in an understandable and user-friendly format has been highlighted as one of the most essential features of contemporary controllers (e.g. see Järvenpää, 2002; Granlund & Lukka, 1998a, Pierce & O'Dea, 2003). In addition to producing relevant information for decision-making purposes, interpretation and analysis of data should be of high priority too (Järvenpää, 2002, pp. 41). Furthermore, managers are expected to increasingly demand dynamic, interpretive and forward-thinking business analysts, who considerably contribute to adding value to the business. Thus, contemporary controllers need undoubtedly skills and knowledge, which stretch substantially beyond their assumed technical accounting expertise (see Burns & Baldvinsdottir, 2005, pp. 751). Consistently, the survey carried out by Burns & Yazdifar (2001, pp. 35) pointed out that analytical and interpretative skills are the most cited requirements for future controllers.

Definite accuracy is a comparatively widely-recognized virtue for a conventional 'bean counter' (see Granlund & Lukka, 1998a). However, a contemporary controller is more keen on drawing the big financial picture by being thoroughly acquainted with the earning logics of businesses (Vaivio & Kokko, 2006). Hence, management accountants should augment their

broad business skills in order to be able to co-operate effectively within the process stream (e.g. see Burns & Baldvinsdottir, 2005; Järvenpää, 2002; Burns & Yazdifar, 2001). Moreover, the contemporary controller needs a fundamental pre-understanding of basic relationships prevailing in the business; being deeply familiar with the business logic by recognizing the fundamental causalities and possessing also knowledge of customers and rivals result in more profound understanding of figures. (Vaivio & Kokko, 2006; Järvenpää, 2002)

3.4 Various roles of present-day controllers

Recent accounting literature has put quite substantial effort on analysing the need for a management accounting professional's role change in current business environment (e.g. see Kaplan, 1995; Friedman & Lyne, 1997; Burns & Baldvinsdottir, 2005). Fundamentally, the core motivation behind this discussion lies in the fear of a collapse in management accounting profession's appreciation (Granlund & Lukka, 1998a, pp. 187). Moreover, the academic debate on the role expansion from 'bean counters' towards more commercially oriented functioning is strongly related to the management accounting transition in general; changes in management accounting practices (i.e. processes and tools) has considerably facilitated the need for management accounting professionals to expand their roles too (see Burns & Scapens, 2000; Granlund & Lukka, 1997 & 1998a). Consequently, the prior studies have pointed out that this role change is central to successful shift towards increased business-orientation (Järvenpää, 1998; Granlund & Lukka, 1998a).

3.4.1 Expansion of roles brings controllers closer to decision-making

The roles of management accounting professional have been generally divided into two broad categories (Järvenpää, 2002, pp. 42). This relatively stereotypical and caricature illustration recognizes two extremes: a withdrawal 'bean counter' and a socially active 'business partner' (e.g. see Friedman & Lyne, 1997; Järvenpää, 1998). Granlund & Lukka (1998a, pp. 187) have presented a four-step growth path for management accounting profession (Figure 2). Although the focus in accounting literature is increasingly on business-oriented roles of contemporary controller, the traditional roles of 'historian' and 'watchdog' still form the foundation for more sophisticated roles. Hence, the conventional roles are not replaced, but

expanded with the more advanced ones. However, the role of 'historian' might not be completely necessary anymore while the job description is broadening; arrow is thus illustrated as a more slender in the bottom. (Granlund & Lukka, 1997 & 1998a)

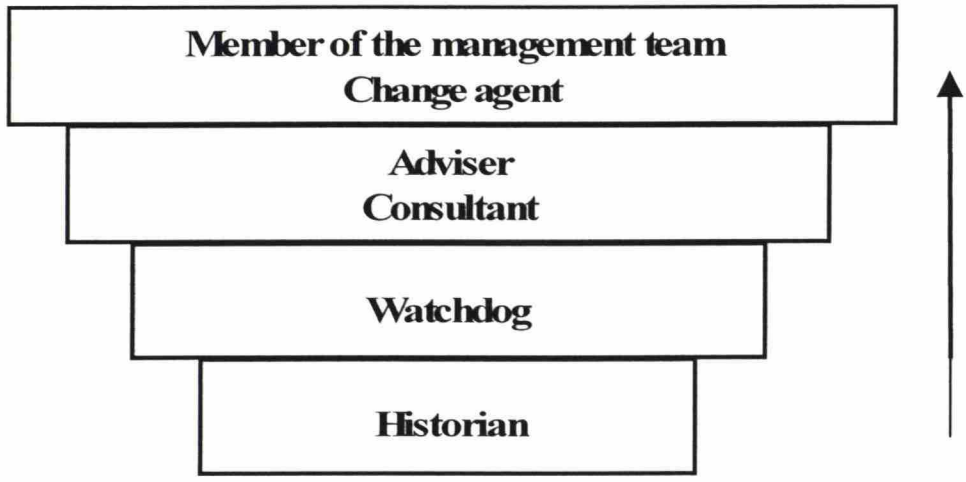

Figure 2: The expansion of the management accountant's roles (Granlund & Lukka, 1998a)

Although the peak of the role development introduces contemporary controller as a true member of management teams, 'bean counters' are still needed however (see Granlund & Lukka, 1998a; Malmi et al., 2001, pp. 498). This traditional role of management accountants is extremely well suited for people working in the centralized part of accounting at the corporate level and having key responsibilities for statutory reporting (Granlund & Lukka, 1998a, pp. 199). Hence, all management accounting professionals cannot be business-oriented controllers. Nevertheless, the knowledge of managing routine tasks of 'bean counter' is expected from contemporary controller too. (Järvenpää, 1998 & 2001) Moreover, some professionals may prefer to remain in the 'bean counter' category, because they are intolerant of change in general (Burns & Baldvinsdottir, 2005, pp. 749-750).

3.4.2 From information and control roles towards future-oriented roles

Partanen (2001) conducted a longitudinal field study during 1998-2000 in order to present a structured role model of controllers in the light of different metaphors. Various metaphors are divided into three broad categories (Figure 3); information and control roles, interaction and management roles and finally future-oriented roles. Consequently, the central characteristics of each role are depicted. Interestingly, this division is fundamentally derived from the role

model of managers by Mintzberg (1973). However, the adaptation of such model is undoubtedly justifiable due to the similarity of the roles, in which controllers and managers are acting in the organization. (Partanen, 2001)

Information and control roles	**(positive roles)**
Informant	• extensive production and transmitting of information, routine reports
Interpreter	• editing financial information to understandable format to various actors
Trainer	• providing organizational actors with financial education
Envoy	• bringing out core values and procedures of parent company in subsidiaries
Social worker	• identifying and solving problems, service-minded attitude towards work
Beat policeman	• monitoring processes; both past-oriented variance analysis & real-time interventions
Information and control roles	**(negative roles)**
Spy	• failure in envoy metaphor; conflict between subsidiary culture and parent values
Detective	• failure in beat policeman metaphor; monitoring regarded as intrusive and negative
Interaction and management roles	
Bridge builder	• two-way communication, social interactions, building team-work
Business manager's trusted man	• supporting business managers, taking part of decision-making, analyzing & questioning
Future-oriented roles	
Rally car co-driver	• strategic planning, providing scenarios for future, analyzing environmental factors

Figure 3: Controllers' role model in the light of metaphors (Partanen 2001, pp. 133 – 175)

Most importantly, the different metaphors presented above can facilitate organizational learning. Controllers are adopting new skills and knowledge as the result of experimental learning by doing. (Partanen, 2001, pp. 174-175) Thus, the metaphor model (Figure 4) implicitly shares relatively similar background assumption of the role change as a growing path process than the role extension model by Granlund & Lukka (1998a, pp. 187). Consequently, information and control roles form the basis of interaction and management roles. Moreover, the learning experiences derived from interaction and management roles may considerably enrich the capabilities of controller to move towards more advanced strategic processes. Finally, the future-oriented role requires the contemporary controller to utilize new innovative techniques in order to be capable of analyzing extensively future scenarios. However, a failure in information and control roles leads to undesirable roles of spy and detective, which on the other hand hinder the transition to more sophisticated interaction and management roles. (Partanen, 2001, pp. 327-331)

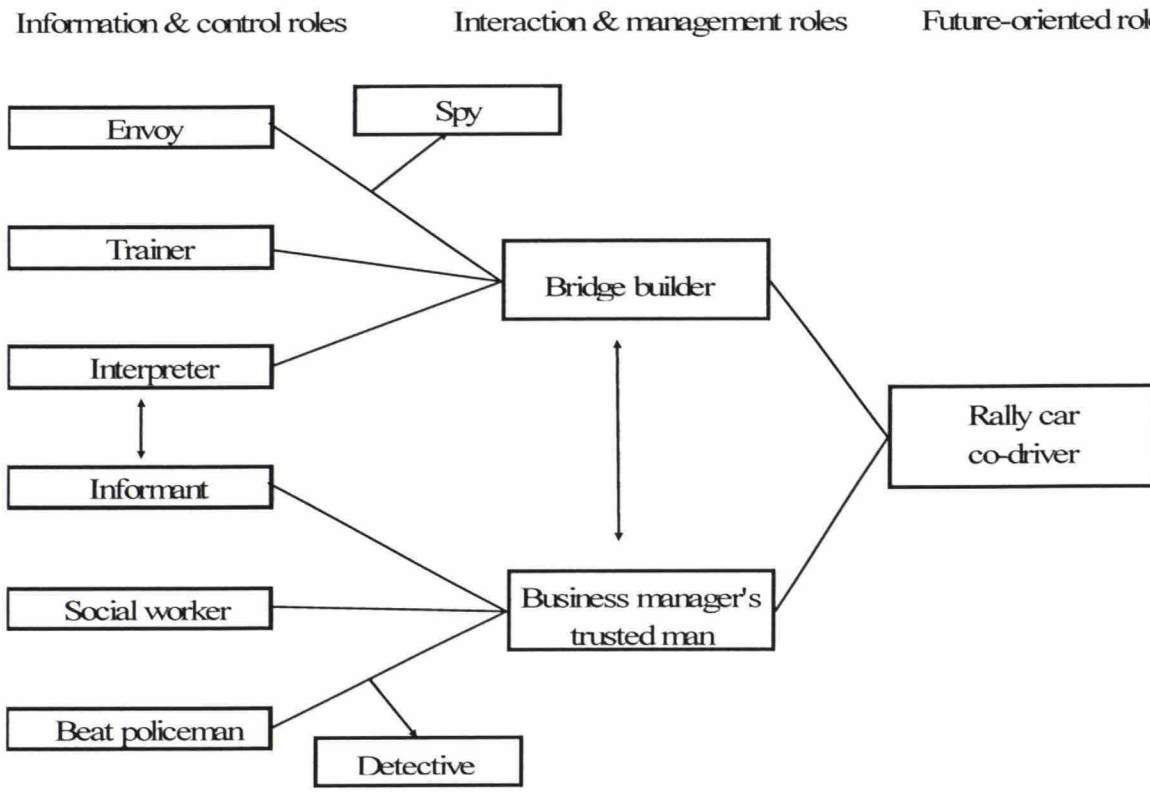

Figure 4: Learning path for contemporary controller (Partanen, 2001)

3.5 Reservations concerning the theory of contemporary controller function

Academic literature depicts the contemporary controller function in an extremely positive light. Consequently, the optimism on modern-day controllers is reflected in an overly simplified view on the change processes from 'bean counters' to business partners. (see Granlund & Lukka, 1998a; Partanen, 2001) Change in the management accounting practice is rarely managed and formal organizational event, but on the contrary organizations drift as a result of random influences and various implicit pressures (Burns & Vaivio, 2001, pp. 394-395). Hence, the management accountants' role change is a complex and contextual process, which should not be studied in isolation of institutional and social factors (Scapens, 1994). Moreover, the stability around management accounting practice spawned by dominating institutions and existing power structure restrains the change (Granlund, 2001).

Furthermore, the empirical evidence of momentous transition of traditional 'bean counters' towards contemporary business-oriented roles is still relatively scarce (see Granlund & Lukka, 1998a, pp. 201; Burns & Baldvinsdottir, 2005, pp. 726). Thus, there is always the

possibility that a cosmetic change has become confused with substantive one. Consequently, normative claims of the role transition are not necessarily a guarantee of a change as an empirical phenomenon. (Burns & Vaivio, 2001, pp. 393) Moreover, the extreme twofold division of professionals into negatively associated 'bean counters' and highly-appreciated business controllers might be misleading and pointless. Consideration of any management accounting change as constituting simple movements from one optimal position to another is actually flawed and ambiguous (Burns & Scapens, 2000b). Hence, the cumulative nature of change events should not be ignored (Burns & Baldvinsdottir, 2005, pp. 751).

Moreover, it should be acknowledged that 'bean counters' are unquestionably needed also in the future to take care of certain routine tasks (Malmi et al., 2001, pp. 498). Thus, it can be argued that completely new job descriptions and responsibilities are arising. Some management accounting professionals may not be too motivated of moving towards more advanced roles and hence, they prefer being 'bean counters' also in the future (Burns & Baldvinsdottir, 2005, pp. 749-750). In addition, some professionals might be lacking skills and knowledge required from contemporary controllers (Granlund & Lukka, 1998a). Therefore, a 'middle-role' controller lying between traditional 'bean counter' and active change agent is representing formal routine accounting in a contemporary context (Vaivio & Kokko, 2006, pp. 34). Finally, it is worth noticing that at least part of the development might be explained by solely redefining the responsibilities of professionals without any change in real organizational practice (Malmi et al., 2001).

What is more, the reservations concerning contemporary controller could be attached to the vague notion of business-orientation. Consequently, it is quite ambiguous how business-orientation is actually reflected in the everyday practices (Burns & Baldvinsdottir, 2005, pp. 726). Traditionally, technical assistance in terms of providing decision-makers with relevant tools and information has been considered as the main requirement for business-orientation (Granlund & Lukka, 1998a). However, management accounting techniques are not regarded as strategic resources to gain competitive edge, but intentions are purely operational (Granlund & Lukka, 1998b, pp. 153). Hence, the change towards contemporary controller function cannot be explained simply with technological progress (see Friedman & Lyne, 1997; Burns & Baldvinsdottir, 2005). Consequently, the personal characteristics should be taken into consideration too (see Pihlanto, 2000; Partanen, 2001). Moreover, the role classifications should not be taken too seriously, because every individual is unique in a way.

Thus, the rigid characterizations can be critically questioned due to the considerable effect of individual aspects on the practice of contemporary controllers. (Pihlanto, 2000, pp. 18-19) After all, even a business-oriented controller act under several different roles depending on the situational factors. (Partanen, 2001)

3.6 Summary of the theoretical framework

A considerable transition from 'bean counters' mentality towards contemporary controller function is widely recognized among academics (e.g. see Burns & Baldvinsdottir, 2005; Vaivio & Kokko, 2006). However, due to the lack of empirical evidence from the field, the literature does not share completely unanimous view on contemporary controller, but the 'phenomenon' is depicted and approached in a multifaceted way (see Granlund & Lukka, 1998a). Most importantly, it is worth noticing that the increased business-orientation of contemporary controller function is not exclusively reflected in the main processes, but there are substantial repercussions to tools, knowledge and roles as well (see Partanen, 2001). Consequently, the summary presented here (Figure 5) pulls together the main results, observations and normative claims from previous studies.

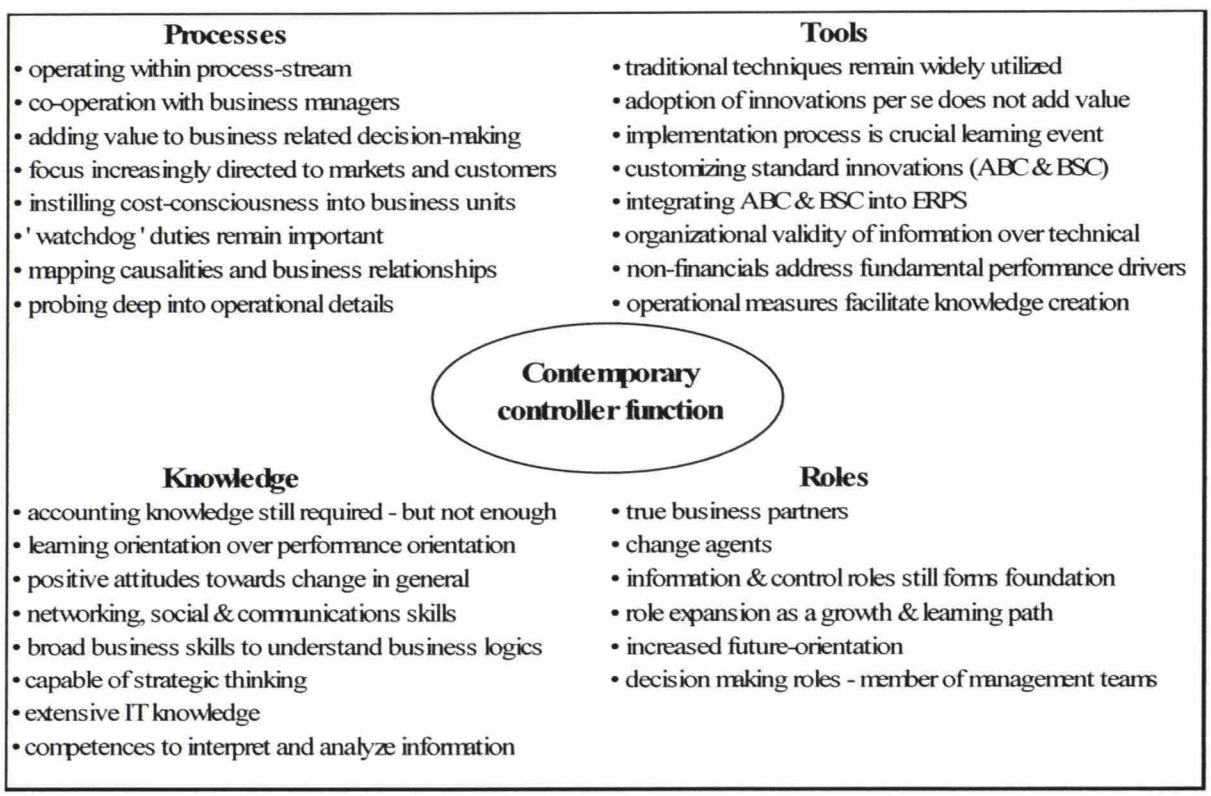

Figure 5: Theoretical summary of contemporary controller function

This rapid development in controller's job description extensively stated in management accounting literature provokes speculations concerning the key driving forces behind the progress (see Vaivio & Kokko, 2006, pp. 31). Therefore, the main forces[4] driving change towards contemporary controller function are summarized in the following illustration (Figure 6). In order to provide a more comprehensive view over change problematics, both technical and institutional forces are included in the examination (see Burns & Scapens, 2000b).

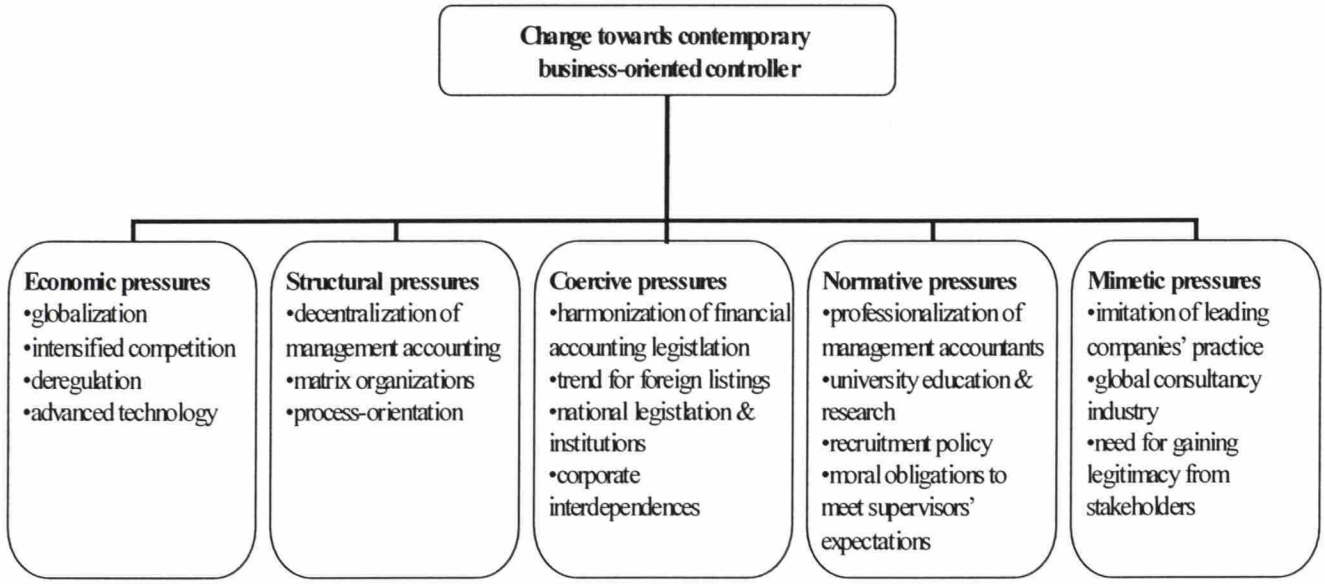

Figure 6: Theoretical summary of key driving forces towards contemporary controller function

[4] It is worth noticing that driving forces are relatively embedded in situations. However, the core intention has been to identify and pull together the driving forces widely acknowledged among academics around this phenomenon.

4. METHODOLOGY

4.1 Research method

First of all, the choice of research method should be approached from the viewpoint of the study objectives (Hopper & Powell, 1985, pp. 430). Hence, the selection of research strategy depends on the core purpose of the study and the nature of the research problem to be examined (Yin, 2003). Consequently, according to Yin (2003) there are basically five different research strategy alternatives available; experiment, survey, archival analysis, history and case study. Because the aim of this study is to investigate how the contemporary controller function is operating in a practical context, a single-case study method is the most eligible approach for the research. Particularly the studies focusing on how and why questions, are considered appropriate for a case study strategy (Yin, 2003).

The field studies have gained considerable ground among management accounting academics during the past decades. Probably the most crucial motivation behind this trend has been the need for providing more multifaceted and profound depictions of management accounting in an organizational context. (Ahrens & Dent, 1998, pp. 1) Most importantly, field studies investigate management accounting phenomena within their real-life context; in the settings where management accounting has been originally developed (see Hopwood, 1983). The frontier between case and field study is relatively vague, and thus the separation of these two methods is practically unnecessary (Kasanen & Lukka, 1993, pp. 357). Consequently, a case and a field study are regarded as synonyms in this research.

Management accounting research has been for long dominated by normative and positive theories. Normative studies are fundamentally striving for providing specifications and instructions; what should be done and how things should be. On the other hand, positive research method is based on the empirical evidence from the field and hence, the aim is to explain and predict phenomena in their real-life settings. Both normative and positive research methods are founded on neoclassical economics, which have key assumptions of rationalization in decision-making and benefit maximization. Consequently, these study approaches are applicable to macro-organizational events, but they fail to interpret the reality

of management accounting at the level of individual and group. As a result, these deficiencies in normative and positive theories have led case study method to considerably gaining ground among management accounting academics. (Scapens, 1990, pp. 261-264) Moreover, a substantial series of environmental changes affecting the management accounting practice during the 1970s and 1980s forced the managers to create their own adaptations to prevailing conditions, which significantly inspired academicians to utilize field-based research to understand such development (see Hopwood, 1983; Ferreira & Merchant, 1992).

Most importantly, case study method is fundamentally grounded on the social theory (Scapens, 1990, pp. 267-268). Thus, field studies focus primarily on actual processes and tasks in the socially constructed real-life context, not on situations artificially created by the researcher (see Ferreira & Merchant, 1992, pp. 4; Scapens, 1990). Consequently, the core intention of case study method is to extend consciousness of dynamics in certain area of management accounting within single settings (Eisenhardt, 1989, pp. 534). Moreover, field research is especially powerful in studying phenomena that are not yet well understood, that are complex or contextually contingent, or that are sensitive in ways that may cause substantial response biases in a survey study (Ferreira & Merchant, 1992, pp. 24).

Case studies can be additionally divided into five broad categories depending on the purpose and main objectives of the study (see Scapens, 1990; Ryan et al., 2002; Yin, 2003). *Descriptive study* concentrates mainly on depicting the management accounting techniques, methods and systems in use. On the contrary, *illustrative study* strives for introducing new and innovative practices in the case company. Furthermore, *experimental study* places emphasis on testing the new techniques and reviewing the potential outcomes of implementation of such practices. *Exploratory study* aims to probe reasons for certain practices and generate completely new hypotheses for further testing. Finally, the meaning of *explanatory study* is to pursue explaining certain phenomenon without any intention of drawing generalizations. (Scapens, 1990)

This qualitative single-case research can be principally categorized into explanatory and interpretative studies. The core intention is to shed light on the practice of contemporary controllers in the multinational company. Moreover, this study aims to increase understanding around the transition from 'bean counters' towards more business-oriented partners. By probing deep into the case company's controller function, the research strives for interpreting

and explaining the practical nature of management accounting in an organizational context. However, the study comprises also elements from exploratory method, because some new hypotheses concerning the existence and need for traditionally defined 'bean counters' are presented.

4.2 Reservations concerning the study

4.2.1 Generalizability of the study results

Despite the fact that case methodology has been increasingly gained ground particularly among management accounting academicians, the scientific status of case studies has been considered relatively low. The scientific value of case studies has often been challenged by arguing that the results are not generalizable, but actually the merits of case method are solely related to the provision of anecdotal evidence from the field. (see Lukka & Kasanen, 1995, pp. 71) The generalization can be practically from sample to population, from place to another and from point of time to another. Hence, the generalization in management accounting research is always questionable due to the dynamics of social contexts and institutions. However, high quality case studies are capable of producing credibly generalizable results to some extent. Instead of statistical generalization, contextual generalization is possible for case studies probing deep into the institutional and historical context. Thus, the vital precondition for contextual generalization is to provide a convincing connection of the study with the real world phenomena surrounding the case in question, such as history, institutions and markets. (Lukka & Kasanen, 1995)

Consistently, Yin (1984, pp. 21) has presented that field studies are generalizable to theoretical propositions but not to populations or universes. Moreover, the case study does not represent a sample, and the researcher's goal is to expand and generalize theories, not to enumerate frequencies and strive for statistical generalization. Scapens (1990) also recognizes the possibility of case studies to achieve theoretical generalization instead of statistical. Nevertheless, the central merits of case studies are basically related to the rich and profound descriptions of organizational reality. By combining the deep-probed field observations with the theoretically interesting story considerably substantiates the argument. Thus, the

balancing between theory and empirical evidence plays substantially important role here. Neither theory nor field observations have any intrinsic value alone. Finally, it is worth emphasising that the case studies are always grounded on empirical observations of certain specific circumstances, which are moreover subject to researcher's objectivity. (Ahrens & Dent, 1998) Hence, the generalizability of case studies should be always taken with a grain.

4.2.2 Validity and reliability of the study

First of all, a considerable attention should be paid on the validity and reliability of the qualitative data. The validity of a study can be basically defined by the extent to which a study accurately reflects the phenomenon that it is intended to investigate. More specifically, a study with high validity is able to spot the sought-after research subject out of empirical material. The reliability of a study is on the other hand related to the extent to which the empirical evidences can be relied on. (McKinnon, 188, pp. 34-36) Hence, the reliability can be improved by gathering information from several different sources (Scapens, 1990).

There are a number of substantial challenges concerning the validity and reliability of empirical case studies. These threats can be fundamentally divided into four broad categories. First, the researcher gives rise to certain reactions among personnel in the case organization. The presence of researcher might cause study subjects to alter fundamentally their behaviour and ways of doing things. (McKinnon, 1988, pp. 37-39) Thus, one of the central challenges is to create a confidential atmosphere between the researcher and subjects. Consequently, the increased trust is practically reflected in the enhanced openness and finally, in the more profound empirical evidence in general. (Scapens, 1990)

The second category of potential threats arises from the objectivity of researcher. The researcher is in a position to arbitrarily interpret the gathered data (McKinnon, 1988, pp. 37-39). Therefore, the internal validity of field studies is relatively low, because the researcher explains causes and explanations of the phenomenon under investigation – readers cannot be sure the researcher has identified and communicated the most essential and critical ones (Bruns & Kaplan, 1987). Thirdly, the data gathering is usually limited to some extent due to overly short time period spend in the field or the need for research subjects to withhold information (McKinnon, 1988, pp. 37-39). Consequently, defining the scope of a study is

essential in order to get more detailed and deeper understanding of certain specific phenomenon (Scapens, 1990). On the contrary, excessively strict delimitations might considerably hinder the researcher's ability to obtain rich observations of the phenomenon in the real-life context (Ferreira & Merchant, 1992). Finally, the fourth category is based on the complexity and narrowness of human mind. People tend to embellish and forget some information. (McKinnon, 1988)

The validity and reliability of a study can be substantially improved by using several multifaceted sources of empirical data. This method is called triangulation. Some typical sources of information are documents, interviews, surveys and participative observation. (see Eisenhardt, 1989; Scapens, 1990; McKinnon, 1988) It is central to pay attention also to informal evidence, for instance tone of voice and physical gestures (Scapens, 1990). Furthermore, spending more time in the field, acting naturally and well-behaved in the case organization and preparing properly for interviews have all favourable effect on the validity and reliability of the study (see McKinnon, 1988).

4.3 Data gathering

The study was carried out in a single multinational company. First of all, a considerable amount of time was spent on mapping and sketching various topics around management accounting in the case organization. Consequently, a substantial number of informal discussions were carried out with professionals from different areas of expertise in order to get a picture of topical and interesting subjects around management accounting practice. These off the record conversations pointed out to be extremely valuable sources of information, which moreover led the researcher to become more acquainted with the case company operations. Furthermore, the researcher aimed at keeping continuously one's eyes open for fine-tuning the topic during the process of empirical data gathering. The core intention was to direct the focus increasingly on the issues with meaningful and profound implications in the context of management accounting.

In order to enhance the validity and reliability of the study, several different sources were utilized in the data gathering (see Eisenhardt, 1989; Scapens, 1990). Semi-structured theme interviews formed the foundation of the data collection in the first place. Furthermore, the

researcher was able to inquire into some internal material concerning the business controlling in the case organization. Thus, the researcher was capable of creating a basic understanding of the contemporary controller function in the case company before initiating the conduct of interviews. Finally, the researcher has been in a favourable position to actively observe the organizational reality for several years now. Hence, the researcher is familiar with the organization and its business logic to the extent that one is able to act naturally and relaxed in the context. Moreover, the background knowledge of the industry and business substantially contributed the researcher to probe deeper into the operational details in interview situations. However, the researcher also acknowledges that the close relationship with the case company might cause objectivity problems. On the other hand, the topic and the interviewees were chosen carefully in the first place so that they were entirely independent of the researcher's status in the case company.

Overall, eight people were interviewed for the study purposes (Appendix 1). All interviews were carried out as semi-structured, which enabled the researcher to actively control and direct the discussions towards the most interesting issues (see Hirsjärvi et al., 2001). Thus, the broad themes for the interviews were predetermined, but the precise questions were not specified beforehand. Moreover, the reciprocal order of questions was not fixed in advance, but the researcher was in a position to actively lead and develop conversations towards matters of substantial relevance in the study. The interview framework (Appendix 2) was constantly evolving during the process, because the researcher tried actively to utilize the initially gathered information in the forthcoming interviews. The central idea was either to find more support from previously stated arguments or to get totally new, even contradictory aspects and opinions, which might challenge the preceding findings. Furthermore, the interview framework and presented questions varied somewhat person by person depending on the role he or she played in the business controlling. Finally, the interview framework presenting the broad topics for the discussion and the study framework introducing the core intension of the study were provided beforehand to every interviewee. Hence, the interviewees had a possibility to acquaint themselves with the topic in advance.

The duration of interviews varied from 45 minutes to 75 minutes, with the average interview taking about 60 minutes. Two interviews were conducted by telecommunications devices due to geographical distances. Rest of the interviews were carried out face to face at the case company's headquarters. However, it is worth noticing that a great number of informal

discussions with wide-range of various finance and accounting professionals took also place in the case organization during the study. Moreover, all the interviews were tape-recorded and carefully written out in order to improve the study's validity and reliability. Consequently, the empirical part presents plenty of direct citations from the field, which aims to give better opportunities for the reader to interpret and understand the final outcomes of the study. Furthermore, a great deal of effort has been placed on describing the conduct of the study in detail, so that the reader would be in a position to critically evaluate the reasoning and logic of reaching the study conclusions.

4.4 Background information of interviewees

The interviews were carried out during April and May. A great deal of background work was accomplished in the first place in order to get one acquainted with Business Control organization in the case company. Simultaneously, the researcher focused on locating and approaching various business controllers from different areas of expertise. The core intention was to study controller function as extensively as possible by interviewing controllers operating at various organizational levels and geographical regions. Each of the interviewees was strongly related to business controlling; six of the interviewees were acting under the title of controller with different kinds of responsibility areas in the organization, and two of the interviewees were operating in a supervisory position of Business Control. Moreover, all interviewees had a master's degree of business and many years working experience within management accounting.

One of the key aspirations in selecting the interviewees was to pick out management accounting professionals with remarkably different prior working experiences. Consequently, their work experience in the case company varied quite dramatically from 3 years to 21 years. The focus was predominantly on controllers with long experience from the field, because one of the key study objectives was to shed light on the transition from 'bean counters' towards true business partners. Hence, it was assumed that the professionals with longer experience might be in a better position to present perspectives over economic, structural and institutional forces. However, a few controllers with less experience were interviewed as well with the intention of getting also some fresh opinions concerning the contemporary controller function and its recent development.

The data gathered from interviews is presented anonymously in the study. Nevertheless, broad and relatively vague titles of interviewees are reported, but only to the extent that the reader is capable of understanding the conclusions. First of all, the more accurate identification of interviewees would not add any value for the study, because the reveal of exact identities is not by any means essential for the study outcomes. Moreover, the anonymity might create more relaxed atmosphere in the interview situation and thus, the interviewees might be more willing to speak openly and sincerely.

4.5 Introduction of the case company

UPM-Kymmene Corporation, one of the leading forest products companies in the world, was established in autumn 1995, when the Kymmene Corporation and Repola Ltd and its subsidiary United Paper Mills Ltd decided to merge. This new company started its operations on 1st of May, 1996. However, through the histories of those two companies, UPM has a long tradition in the Finnish forest industry with a relatively manifold merger history as well (Figure 7). The group's first mechanical pulp mill, paper mills and sawmills started operations at the beginning of the 1870s. (Antti Tuuri, UPM- Metsäjättiläisen synty, 1999)

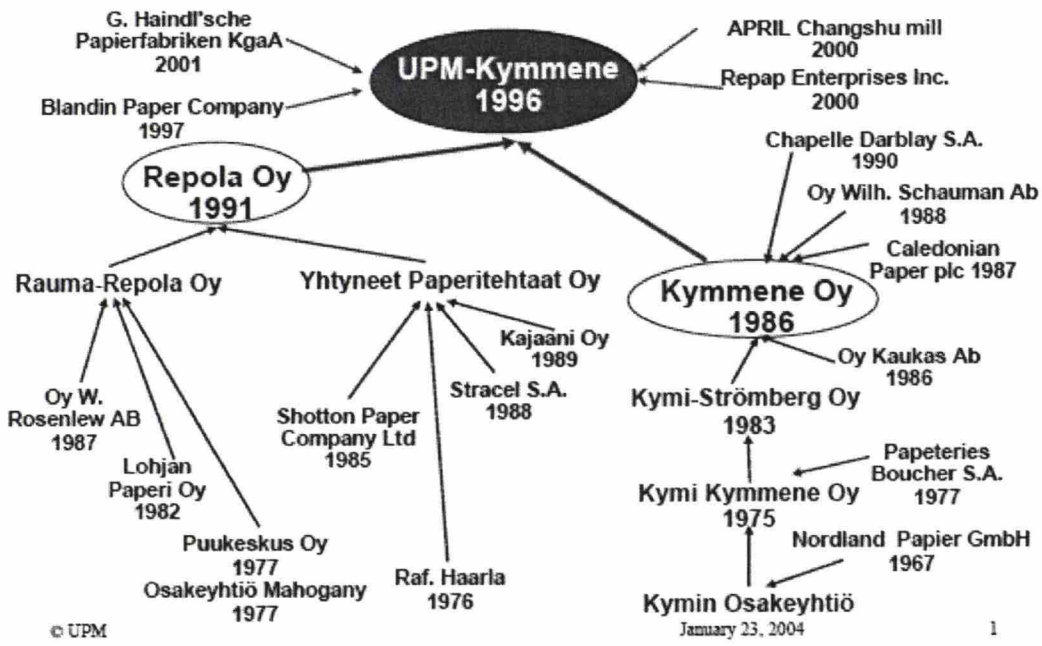

Figure 7: Merger history of UPM-Kymmene Corporation (Intranet)

The Group's operations are currently divided into five business areas; magazine paper, newsprint, fine and speciality paper, converting and wood products divisions. Moreover, the operations are backed by the company's own resources, which include chemical pulp, energy and forest. Sales amounted to € 9.3 billion and profit before tax totalled 257 million in 2005. UPM is a global group with production plants in 15 countries around the world. Furthermore, the group's sales network consists of more than 170 sales and distribution companies. The number of employees reached 31 500 in 2005. UPM's shares are quoted on the Helsinki and New York stock exchanges, and hence the group is obliged to comply with Sarbanes-Oxley Act (SOX)[5]. (Annual report, 2005)

This study has central focus on the Business Control in the organization. Business controllers have dual role at UPM; they are involved in key processes both in the line organization and in the matrix. For instance, divisional controllers report to the Division President, but they operate in a close relationship with finance and control function too. Business Control includes for example divisional controllers, mill controllers, functional controllers and regional vice presidents of finance. (UPM intranet)

[5] Sarbanes-Oxley Act is a law approved in 2002 by the president of US, which aims to secure the reliability of financial statements and recover the trust of general public in correctness and validity of financial information. (UPM intranet)

5. EMPIRICAL EVIDENCE ON CONTEMPORARY CONTROLLER FUNCTION

The empirical part presents the key observations from the field in the light of theoretical framework. Firstly, the organizational reality of controller function in a multinational case company is depicted. The nature of main processes of contemporary controllers is reported in order to shed light on the possible tensions between the normative literature and the practice. Moreover, the significance of management accounting innovations and the central requirements from contemporary tools are discussed; are new technical advancements constantly needed in the expansion of controller's roles, and how do controllers consider their role in these MIS developing processes. Subsequently, the essential knowledge required from contemporary controllers is presented; how should management accounting professionals complement their traditional accounting-oriented skills in the contemporary settings. Furthermore, a picture of the existence and necessity of 'bean counter' types of controller roles is provided. Finally, some empirical evidence on the driving forces behind the shift towards contemporary controller function is reported.

5.1 Nature of contemporary controllers' key processes

UPM has recently restructured its business controlling operations quite significantly. The core intention has been to differentiate the pure business control from routine accounting operations, which has enabled the controllers to move closer to every-day businesses. On the other hand, centralized service centers have emerged to take care of financial accounting in a cost-efficient way. Consistently with this development, the Business Control function is organized in matrix form, which place responsibilities for controllers both in the line organization and in the finance & control function. However, the dual role was generally considered suitable for business controlling and there was not any perception of principal-agent problems arising from the dual role.

> "Well, I think that this current model as part of the matrix organization, which I mean is a matrix also in a business controlling side, is working pretty fine. Naturally, there are some challenges concerning the matrix, especially when it comes to communication...but I haven't seen that it would have been any problem in business controlling. I don't know either, whether this matrix has brought us any considerable benefits, but in certain way it is now the image of whole Group's organization...so in that sense it is quite consistent... And controller has twofold duties in the organization...the decision-making support side

> and the control side. And I think that controller succeed in his or her role best, when he or she is able to keep quite independent role...so that controller is kind of looking the business in the eyes of Group's man or woman...because if the focus is increasingly directed towards decision-making support in the line organization, then the control side might suffer." (director of group business control)

Instead, the matrix organization was regarded to have shifted the controllers' focus increasingly away from producing data towards analysing figures. Moreover, by operating close to business processes, the controllers are in a better position to move their thinking to a greater extent towards future-oriented scenario analysis.

> "In my opinion this matrix form is pretty good, because accounting organization itself strives for cost efficiency...and on the other hand, these new management information systems enable us to increasingly centralize the accounting function. So there is no need for business divisions to have their own accounting resources...but then, you have to have someone capable of interpreting these figures. So the major role maybe for divisions is that you are able to challenge, critically question and look for the future...not the rear-mirror view...because the idea in everything should be to consider, how one can affect the future cash-flows, of course you can still always learn from the past." (divisional controller A)

Nevertheless, the dual responsibilities in the organization force controllers to actively prioritize their duties and critically evaluate the mutual importance of various contractual obligations.

> "Well I think, you know, certainly there are always challenges concerning the resourcing...because I mean, everybody thinks that their request is the most urgent...and of course it is to them. And so you are always juggling and you are trying to prioritize and you are trying to make sure that you meet the needs of the local business...but yet also meeting the needs of matrix organization and the function...so that everybody is happy and that adequate controls are in place. That is sometimes difficult part of it too. I have to judge if I don't do this and I do this instead, so what is the risk ...always analyzing risks and always prioritizing between the two." (vice president of finance)

Most importantly, each of the interviewees shared relatively similar view over traditional control processes. Although the undisputed trend is growingly towards decision-making support, the responsibilities related to controls are still playing significant roles in controllers' daily operations. Even a bit surprisingly, the general opinion stated that the control processes have even gained more ground in recent years. This tendency basically reflects the repercussions of US accounting scandals, which have brought along extremely strict requirements for internal controls in terms of SOX.

> "Well, I must say that unfortunately during the past couple of years the significance of control processes have even increased, due to Enron and Sox for instance...and I am not able to see that time, when there aren't any controls involved in controllers job somehow. Controller as a title is in my opinion a bit misleading, I mean it could be equally well for instance business developer...because to some people controller sounds like strongly negative, or at any rate not a person, who could know something about business." (functional controller B)

> "Certain controls are essential part of this job, particularly now in the Sox world. You still have to have certain controls, and now they are extremely formal...and controller is responsible for those. Controller is quite often unit's Sox manager, and thus he or she is accountable for that these controls work correctly in processes. I think that it is quite natural that controller is increasingly taking care of controls, because controller is in charge of truthfulness of financial information...and these internal controls try to ensure that the information provided by automatic systems is correct." (divisional controller A)

However, it was repeatedly brought into the light that the prolonged significance of control processes does not contradict with the expansion of controller's activities towards increasing business-orientation. Moreover, the conventional control processes were considered to complement fruitfully the business-side processes.

> "Actually it looks like that these control processes are going to even strengthen...so although the business-side will gain some more ground, the controls will increase as well. They are not substitutes, but I think that they even supplement each other...because these internal control reports quite often include some concrete business staff as well, and while you are dealing with these internal controls, it simultaneously increases your business understanding." (divisional controller B)

> "Well yes, you could regard controls as one of the cornerstones...so that there has to be someone, who monitors and keeps things at hands with one's expertise...if you would centralize excessively, you could easily lose your touch to mill operations. So it is kind of central part of my job description to take care of controls." (mill controller A)

Despite the absolute need for such control processes also in the contemporary organizational settings, the legislative and coercive requirements have maybe gone even too far now. People are compelled to spend considerable amount of their daily working hours on complying with the formal controls, which have far too often no real implications for the practice.

> "Control processes are certainly important part especially today given all these corporate misbehaviours...but I think that at some point in the future, let's say few years from now, we are going to see it kind of coming back... and maybe feel a little bit smarter about the controls. So I think, we had to go maybe a little bit too far on the control side, because of things like Enron...for instance, what I have seen in our Sox project, is that we are doing things that are way over the top. You know, we are getting too many signatures for instance...people, who are signing those, are not even knowing what they are signing...and in my opinion, that doesn't not bring your any value. We are printing out all these things, are getting signatures and filing them...you know, what is really needed is to get the right people accountable for the right things...and it is not important to get such signatures and something like that." (vice president of finance)

Nonetheless, the current trend of dividing the traditional management accounting processes into two separate professions necessitates clearly defined accountabilities.

> "So I do agree that controls are important, and I do think that in this matrix environment and because of this split between business control and accounting operations, there is more risk...much more risk not knowing who is really responsible if something fails...you know, I thought you were doing that, no I thought you were doing that. You know, because in the old days, the controller did it all. And it was really clear, because everything was on her responsibility...and now today, it is not nearly as clear." (vice president of finance)

5.1.1 Relative weight between producing routine reports and providing ad hoc-analyses

There was not any consensus of opinion among controllers, when the magnitude of routine tasks in their every-day practices was considered. Management accounting professionals' involvement in producing routine reports varied considerable depending on their organizational status. Controllers operating in the mill side have still their focus on repetitive duties, while on the other hand divisional controllers are nowadays more concentrated on interpreting and analyzing figures and preparing ad hoc- type of analyses. However, the centralized service centers are already producing the basic data, which have substantially relieved controllers' time and effort on more value-added duties.

> "There are quite a lot of routines because of monthly performance analysis...and these processes become more and more routines, due to the development of our tools...so soon we will get all variance analysis and others straight from our systems...and then ad hoc-type of performance analysis will kind of disappear. But then we have plenty of investment calculations and scenario-analyses for current needs...so whenever supervisor requires something." (mill controller B)

> "Well in this current position, there aren't actually any routines...except turn of the month, but that duty takes only one day. So because we are kind of divisional controllers with xx, that is why we have considerably less routine jobs...while mill controllers are dealing more with routines. Or actually it is the centralized units, which produce the very basic routine data today...when I came here in 1999, it was the finance people, whether it was financial director or whatever, who acted as report generator...producing the reports line management wanted. And now we are more like partners capable of supporting managers...so now you have to know what is really happening over there...you need business knowledge." (divisional controller B)

Nevertheless, the process of centralizing routine reports' production and shifting the focus in business control increasingly towards one-off profitability analyses and alternative calculations welling out from business needs, is a challenging organizational change project, especially in a multinational context. Hence, some interviewees considered that there is still way to go, even if the progress has been quite rapid recently. The transition will naturally take time, because it necessitates the past-oriented mindsets to be replaced with future-oriented thinking among controllers. Moreover, it is worth considering and critically evaluating simultaneously, how much standard reporting is actually needed.

> "I think we are still too focused on the past...of course, you have to understand the past to be able to predict the future...so there is kind of synergy there...but I don't think we are, where we want to be yet in that regard. What I see at UPM is certainly that we are moving to that direction in the mills, and I see that the mill people are trying to get out of more traditional millwork...but I think it is difficult, because it is largely the same people, who were there in the older organization. And I think that they haven't totally made the mental shift yet. I think the business controllers are still doing quite a bit the same what they used to do...and maybe because they are comfortable with it...it is always hard to give up something you are comfortable with." (vice president of finance)

> "Well, we have still some references on view, that there is still too much production of routine reports going on in business control. We are in a good way to get rid of it, and the focus will shift more and more on let's say ad hoc-reports...but the production of standard reports in business control should be get to a lower level, and that duty should be moved to shared service function. Moreover, I think that it isn't worthwhile to expand standard reporting too much, of course we need some basic reports and that is extremely natural...but in reporting and analyzing package, the proportion of varying material could be a bit bigger compared to what it is now." (director of group business control)

Finally, it should be acknowledged that people define routines completely differently. Even the most sophisticated profitability analyses might convert into routines in one's opinion, if one is repeatedly involved in preparing those. In that sense, every job builds up some routines sooner or later. Thus, probably the key frontier lies in, whether the routines are such standard tasks, which could be done more cost-efficiently elsewhere, and at the same time released efforts could be then directed to more value-adding duties.

> "Basically when I started this job a few years ago, I had completely nothing routine reporting, but everything was on the ad hoc basis...but it tends to happen that organization orientates in the direction that routines will emerge...and every job has naturally some routines. Now when xx became divisional controller here, and I am kind of number two here now...so we have done quite a lot of work together, and if xx has something else to do, then I have written these analyses to CFO...which can be classified as routine reporting. But of course, the report goes to divisional president and in a way to the top, so I don't know, whether it is routine anymore." (functional controller B)

5.1.2 Business-orientation in daily practices and main co-operational parties

The intense co-operation with both production and sales personnel was considered extremely valuable in controllers' every-day practices. Controllers are nowadays operating as members of mills or divisions management teams, which have enabled and compelled them to actively participating business activities and understanding the basic business logics. Moreover, the controllers have their physical location within the line organization close to product stream, which have considerably shifted the focus from purely inner accounting processes towards more external environment of the company. Hence, it was widely argued that the co-operation with customer service plays an important role too in the contemporary setting.

> "Well, the major co-operational partners for me are the members of management team, so the people responsible for operations and sales...and of course the business development function...maybe I actually co-operate most of all with them. They are kind of developing new models and alternatives, so it is quite natural that we bring the finance view on these projects." (divisional controller A)

> "Clearly the role is to invest time in business processes, and through that bringing issues on the table and sort of sparring our customer service...and recognizing the things, you have to pay attention to. So for instance, if our stocks are increasing and goods aren't moving...and keeping track of sales margins by products...but you know, it is kind of co-operation all the time and the business focus is strong there." (mill controller B)

> "You are not able to this job, if you don't know what is happening in the company. In order to be capable of challenge things in the light of numbers or your expertise, you have to possess a profound knowledge of how the company is operating and what kinds of decisions are made...so in that sense business-orientation is important." (divisional controller B)

Interviewees pointed out to be relatively unanimous in their main communication and co-operational directions. Most of their time and effort were concentrated on the needs of businesses in the line organization. However, the current structural challenges in the industry have increased modestly controllers' involvement in Group's finance & control function's processes – the focus has been increasingly on intra-group cost saving programmes.

> "Well, it is a majority, if I put it in percentage terms so it is like 80 per cent that are mill issues...and maybe 20 per cent are things related to head-office operations, so that they have some particular requests...some cost comparisons for instance...or now we have these cost saving project going on...so something like that, which are kind of company's shared issues." (mill controller A)

> "It is true in that way...the main focus is naturally here on the unit, because our duty is to control this unit's finance...but it is also pretty much so that all kinds of instructions and such comes from the Group. But anyway the core focus is on the mill side...and the focus should be always on something...and now our industry is in the middle of structural change, so the focus is now increasingly on this restructuring." (mill controller B)

However, it also became evident that the profound understanding of business causalities and the true business-oriented mindedness develop slowly through working experience. Consequently, the genuine business-orientation as a guideline for every-day practices necessities you to be properly acquainted with business logic, markets and customers. Moreover, the effective co-operation with business people requires that controller understands the business; otherwise, controller is not to be taken seriously by operational professionals in financial issues either.

> "It [business-orientation] is of course the target state, and from day to day and the longer you have done the same job, you will reach that. So for instance, when I started this job, I didn't know the customers for example, just a few biggest ones...or what are they purchasing and what are they publishing...so it is a long learning process. In my opinion, when the finance people goes to business organization...then you have certain time to learn especially these interdependencies, cause and effects...our customers are global, so if give certain price in country A, then it will rapidly roll to countries A, B, C and D...I have even attended a 8 days printing school...so now I really know for instance how much ink is needed in that one and this one. If you are not acquainted with these things, it is pointless to go and tell to 50-years old segment leader, how the things should be...you can lean on your numbers and talk about common profitability, but it has nothing to do with it, how your customer buys that paper and what he wants." (functional controller B)

Most interestingly, quite a few arguments strongly highlighted that there is actually nothing new and revolutionary in this current focus of business-orientation, which fundamentally contradicts with certain academics (see Granlund & Lukka, 1998a; Friedman & Lyne, 1997).

Many mills have had their own mill controllers, previously called accounting managers for over 20 years now, who need to know the business, recognize the revenue drives and make different kind of analyses.

> "We have had very compact package here at the mill...so I mean, since this mill was established in 1975 we have had own finance people here at the mill side...so we have that kind of culture here. At some other mills the accounting department might have been as a separate entity in somewhere else...and then they have sent all the reports to mills...so it is kind of funny that we have had sort of this mill controller function here right from the beginning...even if the official title has come only recently...and as I said, we have had this [business-orientation] here you know from the mother's milk...well, it has been that way, and we have been working really close to business all the time...and we have done these sweet pots-analyses here, so that the salesmen knew right away, which are our best products and markets and so on." (mill controller A)

> "I don't think that it is a true statement to say that 20 years ago the controllers didn't need to know the business...that is just not realistic...you know, I think that it is easy to think that...but having, you know growing up on the mill side, I started with the Blandin mill as an assistant controller. You know, at that time the mill controller did everything...both accounting operations and business controlling...they had to know the business. You couldn't do your job if you didn't understand how your business works...and understand drivers on the revenue side...and you had to understand customers and their needs...and you certainly had to know your costs. You had to know what drives your costs all the way through the supply chain. There is no way you can analyze the numbers if you don't." (vice president of finance)

5.1.3 Spreading cost-conscious mindset into the operations

Instilling and boosting commercial thinking into the operational people was unanimously regarded as one of the main responsibilities of contemporary controllers. However, this financial awareness and 'money does matter' attitude was considered to be already quite deeply embedded into the operational managers' mindsets, largely due to the Group's cost saving campaigns in recent years. Despite this progress, the interviewees highlighted that they strongly believe that focus on cost-consciousness will even increase in the near future. The organization-wide financial training might gain considerably more ground in the future; similarly than the mini- paper schools are nowadays widely utilized to get people acquainted with production logics.

> "Well yes, bringing forth the cost-consciousness and keeping watch on, where we are at the moment...of course it is central issue...and then to inform production lines as well, that for instance this current situation is not in line with our targets. But actually, because there have been these cost savings and such in the industry lately, so the awareness has already spread quite well. I mean, these cost saving programmes have been going on for several years now, and we have been progressing there...so in that sense people should already be familiar with these programmes and their targets...but follow-up and constant monitoring are still very important" (mill controller B)

Moreover, it was widely acknowledged that the case company operating in the basic industry has traditionally been engineer-led. Thus, the need for controllers to instil financial mindedness into the organization is even more important.

> "Let's say that my role has actually been here in our functions to run three basic financial trainings every year...there have been people from our functions' management teams and their subordinates...so in that sense, I have been involved in this [spreading cost awareness] pretty concretely...and it is the area, which has probably lacked a bit previously. It is needed, because our function leaders make plenty of decisions, which have effect on financial issues...and they don't necessarily have any education for that...many of them are however engineers. And we have sort of mini- paper schools related to production here in the company, you know packages lasting a few days, but we haven' t had those related to finance...but I think it will increase." (divisional controller B)

> "Well, it is one important part of this job...and actually, we are just planning a financial training for the whole mill personnel. We have had different kinds of themes going on all the time, and more and more all the time, when times have got harder...let's say that we are progressing, but there is still lot to do. It is pretty deeply embedded in engineers that machines run fast and sort of efficiency of production and such things...so definitely there is still enough work to be done in this cost-consciousness, bringing euros increasingly to everything...and controllers have important role here." (mill controller A)

Furthermore, a commercial mindedness varies quite drastically in the organization; the executive level is naturally well aware of profitability issues, but there are still challenges concerning the commercial attitude at the operational level. Thus, contemporary controllers are well positioned within businesses to actively boost and remind operational people to keep financial consequences constantly in their minds. However, it is worth noticing that financial mindset is not solely based on minimizing costs, but it is about maximizing margins after all.

> "Managerial level possesses already now really good financial knowledge...no matter, whether they have engineer or business backgrounds or actually whatever...in any case they are very familiar with the figures, so you don't have to explain them much...so the starting point is really good. There is a greater challenge in cost-consciousness at the mill side...but actually, there has been so much talk about it going on recently, that everybody is already aware of that...so it is more like sparring and reminding. At the moment, the cost-awareness is maybe more focused on the sale side, and you know, how to optimize our sales...so the basic idea is to maximize earnings and minimize those costs, which are tied to the product...and then to find some sweet pots for us." (divisional controller A)

5.1.4 Key elements of analyzing and interpreting performance figures

First and foremost, all the controllers highlighted that it is extremely vital in performance evaluation to keep constantly a close feeling to the business. Most importantly, by actively interacting with production and sales people on a regular basis, controller is capable of having an ongoing hunch, how the business is running. In order to maintain this touch in financials

and avoid complete surprises at the end of the period, controller must also possess wide understanding of business causalities and performance drivers.

> "Well, it is a huge advantage that you are sitting here at the mill side among your people, and not you know at a separate building somewhere else...because otherwise you would easily lose your touch, what is happening at the mill side. So when you are located at the mill, and every day you drink coffee in the morning and chat with engineers, then you are kept continuously informed...when we have stoppages, how is our order book...so every day I meet our customer service person and our production managers round the coffee table. It is essential to have hunch all the time...well, in this month one production line is running at full capacity, and another one is down for let's say 10 days, okay then you can figure out the rough direction." (mill controller A)

> "I guess that one pretty good way of doing things as a controller is to discuss and make rounds among people...and of course our follow-up systems show, how much we have sold...and moreover this is quite well in line with controller's characteristics, you know talkative and sparring. So you have to operate actively in this mill network, in order to know constantly, where we are at the moment." (mill controller B)

Furthermore, the process of building the pre-understanding of performance pointed out to be relatively personal and exclusive. Through experience, controllers are establishing their own ways of constructing the broad picture of company's current performance.

> "I have this kind of 'fingerspitzegefühl'...which is done weekly...I check certain specified things. We have confirmed orders in our systems, and if I have midmonth figures showing certain amount of orders confirmed, so it will be pretty much the sales of whole month, it won't deviate substantially from that. But to sum up, it is my most important task to know accurately, where we are constantly." (functional controller B)

In addition, the controllers tend to prioritize certain measures and figures in order to piece together the wide picture of company's financials during the period.

> "Sales volume and price are the main figures, which we are able to monitor during the month...and pretty quickly during the month, we will see from those figures, in which direction we are going...so are we going in line with forecasts or not." (divisional controller A)

Consistently, the process of spotting extraordinary is carried out by singling out a couple of measures. Most importantly, the controllers strive for detecting anything that does not seem to fit the normal picture by glancing through the approximate magnitudes of certain prioritized figures in the first place. This competence of identifying the 'roughly right' picture evolves naturally along with experience, when you become increasingly acquainted with the business.

> "When we are looking the performance figures for the first time...so first you check about five or six figures, that you see that they are roughly right...I mean that they are in a rational level...because there might be even some wrong entries. There are some good indicators such euro per ton –measures for doing that...for instance sales costs euros per ton. Then you have these ranges embedded in your head...sales costs must be for instance 80-90 euros, it could not be 50. Because if something irrational figures get through, then it is me, who is responsible in the first place." (mill controller A)

Moreover, contemporary controllers are also expected to probe deep into the figures. In order to add concretely value for the performance evaluation, the controllers must go beyond the traditional variance analysis, and explore into the reasons and consequences; why we did not reach our targets and what should we do to meet the objectives next time. Hence, once again the significance of knowing the basic relationships in the business and understanding the external environment cannot be undervalued.

> "Well exactly, it is very essential feature [to know business & markets]...because everybody is able to make the variance analysis, and point out the differences...but why do we have variances...let's say that our sales has failed to meet its targets, so why is that...have we had bottlenecks in production or have we lost markets somewhere. So you have to be able to give reasons and comments...to find essentials from the figures. And the second thing is that you should notice from the figures, what should be improved in the future...so the action points from the performance figures." (divisional controller A)

5.2 Central requirements for contemporary management accounting tools

The need for global and harmonized management accounting systems was widely recognized and highlighted among controllers. Especially in the large multinational company, the reliability and the congruence of data are undoubtedly even more necessitated. Consequently, the interviewees had their top priority in providing congruent, identically processed data everywhere in the Group. The harmonization of data production was also considered cost-efficient compared to discrete stand-alone tools.

> "Well, the primary requirement is that the systems should be global...traditionally the mills have had their own systems...but as I told you already about out SAP implementation project that we had after the turn of the millennium...so then it came for us that we have same accounting system everywhere. So it was the first genuinely global system for us. And now we are gaining real benefits from it, so I mean if you would have only scattered bricks, then you would spend plenty of time in data gathering...of course, the flexibility will get a bit lost in these huge systems, but you are able to round it someway." (divisional controller B)

> "And one important feature is naturally this harmonization, so that you are trying to ensure that the data is similar and equally processed everywhere in the company." (divisional controller A)

However, the controllers tended to favour relatively simple and conventional tools in their every day practices. Most importantly, controllers are required to provide the management with various financial illustrations and scenario-analyses, which place unquestionably considerable demands on management accounting systems too. Hence, the cube-like data processing models have gained substantial ground in providing for instance multiple customer or product profitability analyses.

> "I am not actually involved in using for instance SAP and these kinds of systems in any way...so the major tool is however Excel...you are processing the data at Excel...and then we have this Hyperion, where we have our consolidated earnings...and another important tool is MIS, which is the tool for sales and profitability. It is a cube, where you can very multidimensionally check customer, product and actually whatever profitability you want to view...it includes geographical dimension as well." (divisional controller A)

> "Well, SAP is actually quite slightly utilized, and all the basic analyses are derived from Cognos...sales, customer side and almost everything can be received from there. You can kind of process the data in these cubes in multiple different ways, we get for example all cost dimensions from there...it is extremely multifaceted and easy to use, while you got used to it...It is really good, and SAP is actually more like 'financial accounting program'...so you can get income statements and such out of there...and Cognos is for analyzing figures and digging." (mill controller A)

The significance of cube analyses were broadly acknowledged in the contemporary settings, when the operating environment is dynamic and the profitability issues are strongly emphasized. However, there is a slightly risk of losing the touch for the reality by excessively utilizing these cube models. By varying the parameters out of company's control, facilitates the organization to be better prepared for the future uncertainties, but these kind of variables tell actually nothing about the forthcoming profits and performance.

> "Basically we have a great deal of these tools, that if the price changes to this or that, but I have said many times, or at least tried to say to some gurus, that you can freely change the price in your systems as many times as you wish, but try to go and sell it for that price...well, it is certainly a different thing. So what I personally prefer, and what I probably will increasingly build in the future, is that we have certain production lines...and if we close something, how will it affect our profitability. These kinds of issues are the ones, which can actually be realized...contrasted to speculating with prices, logistics or oil price for instance." (functional controller B)

5.2.1 Significance of ERPS on controllers every-day practices

The controllers did not report any considerable direct effects of ERPS on management accounting and on their own job descriptions. However, the importance of enterprise resource planning systems such as SAP was still widely recognized, but the main repercussions were regarded to be experienced in financial accounting side. Most importantly, the interviewees pointed out that more standardized and harmonized data production has improved the quality and reliability of data to some extent.

> "Well, SAP has probably harmonized our financial accounting practices...so the data production processes have naturally become more standardized...but maybe the reporting tools providing us with more sophisticated information, are even more essential for us. SAP is more widely utilized among financial accounting personnel." (mill controller B)

> "It has harmonized data, and thus you are able to make comparisons...and try to find best practices...if the data isn't standardized, then you aren't in a position to compare things...because then you would compare apples with oranges." (divisional controller B)

Nevertheless, ERPS have facilitated the more definite split between business control and transaction processing. These global, integrated systems have substantially contributed to the creation of centralized shared service functions, which on the other hand has enabled the controllers to spend more time and effort on analyzing and interpreting data. Hence, the adoption of organization-wide ERPS has implicitly remoulded the management accounting practices and controllers' duties.

> "In my opinion, it is the most important benefit that it [ERPS] has enabled us to really separate this controller function from the rest...from bookkeeping...because traditionally the financial manager has had the both roles. But now when we have these integrated systems, it is no more tied to location, where you can do these accounting operations...and now it is somewhere else, not on controller's responsibility anymore. Now controller actually starts his job not until the accounting processes have been completed...and starts to analyze. And this actually gives the controller more time to focus on other things...analyzing and interpreting figures." (divisional controller A)

> "Well, I think that SAP finance has really enabled the transformation of finance into true, you know, FSS and Business Control...and I think it certainly will enable one finance & control...you know, we won't never get there without something like SAP or a common financial system." (vice president of finance)

Moreover, the ERPS have improved the accessibility of data significantly. Therefore, it would appear that controllers would get rid of producing and printing out excessive reports for operational managers' purposes. However, it was stated that the traditional roles and practices might be quite deeply embedded into the controllers and line managers. Hence, it might take sometime before the full advantages of ERPS are experienced in the every-day procedures.

> "They should have [more time to analyze]... I think, or at least my understanding is that a lot of them are still producing too many local reports. You know, if we were truly to standardize and harmonize, there would be only one set of reports coming right out of SAP...and as long as we have the discipline to stick to this one set of standardized reports or this one set of standardized data, then I think that the mill controllers would have more time to do the analysis. My guess, my haunch is that the mill controllers in a lot of places are still doing these old reports, which they have always done during the twenty years...because the line managers have got use to see those reports for twenty years...and whether or not, they add any value...probably not...you know, I think that their time would be better spend on taking this sort of standardized and harmonized data and analyzing it." (vice president of finance)

Importantly, it was suggested that integration of systems do not bring any value per se. Thus, the origin of data is actually insignificant for controllers as long as the reliability is high. The following comment by divisional controller gives an appropriate illustration for that:

> "It [integrating ABC or BSC to SAP] isn't actually important, because we aren't using systems like SAP for reporting purposes...so the data is imported from SAP to our reporting systems, where the data is then utilized. So it is more like technical question, whether we have same integrated systems for different functions. For instance if we have some reporting cube, there is no need for all the data to come from SAP...So basically it doesn't matter for me, where the data comes from." (divisional controller A)

5.2.2 Capability of operational managers to utilize systems and seek information themselves

The implementation of global systems has brought the information available for growing number of personnel. Moreover, the intensified usage of reporting cube kinds of tools has substantially enhanced functionality and user-friendliness in profitability analyses. According to the interviewees, the main intention is to empower the final users and make them even accountable for seeking information from systems themselves. Ideally, this would considerably release controllers' effort for more value added processes and simultaneously, the operations would become more clearly responsible for their own costs. However, although the importance of this kind of development is widely acknowledged, and there has even been quite substantial progress going on recently in this respect, there are still efforts to be made.

> "It is a good question, and the development is continuously going in that direction...when the tools, especially these reporting cubes have developed and expanded, the responsibly to search information is increasingly moving to the final users. Thus, the mill controller teams can focus more on actual duties...due to these more global and integrated tools, some of our duties are kind of moving away...you cannot say that we are getting rid of useless tasks, but it is more like those duties, which can be dealt with these new tools more effectively." (mill controller B)

> "I think we have come a long way in creating opportunities, so that now we can get good data, actual data. The problem I see though is that again, we are not always holding line managers accountable for going out and getting the data themselves...there is still too much financial people printing out reports from MIS and handing them to line managers...and I don't think that a good usage of their time. I think that in line management, they need to be trained to know those systems very well...and even if they go off the training and they come back, and finance has to assist them a couple of times and help them, that is fine...that should be their role I think, but at some point they should be responsible for themselves to going in, looking at the data, manipulating the data, and then knowing what to do with it.." (vice president of finance)

Nevertheless, it was presented that during the past few years functions have taken more responsibility in monitoring their own costs. Moreover, this progress was regarded to continue and even intensify in the near future, when the younger generation with presumably better capabilities of utilizing the systems independently, are gaining more ground in operations.

> "Well, one could think that most of them [operational managers] don't use these systems much...but if you consider for instance our maintenance engineers, so they are monitoring and controlling our maintenance costs independently from Cognos reports. I mean that they haven't asked me about the costs for a few years now anymore. So in that sense, there has been some progress going on, and naturally the younger generation is able to use these systems more independently. We have good foundation, but of course we have still work to do in that regard." (mill controller A)

Furthermore, business managers have become increasingly aware of financial matters, which have also considerably facilitated the more intense utilization of information systems and vice versa. As stated before, the controllers' role in instilling commercial thinking into operations

was considered extremely important. Hence, the educative role of controllers is also reflected in their efforts to motivate operational managers to seek information independently.

> "Somehow I think that the business managers' understanding of financial issues has improved significantly over the years...one reason might be that the systems have become closer. Before they got a certain report, and that was it...but now we have management information system type of cube solutions, and especially for younger managers the threshold is already really low to use them...so it is becoming more common...and we are trying to constantly move our reporting in the direction, that the information is in a user-friendly format, and managers are able to use them independently." (director of group business control)

5.2.3 Participation in developing processes of new tools and innovations

The great significance of controllers' active involvement in systems developing processes was largely brought to light. Obviously, the IT is primarily taking care of the pure technical aspects in these projects, but the input concerning what kind of data is actually needed should come from the finance people. Thus, the strong membership in the development of management accounting tools aims to ensure that the systems are serving the core purpose.

> "Yes, controller is involved...so when you start to develop these tools, your starting-point should always be, what is needed...and then you have to be involved in this defining process. Well, let's say for example, that we are creating a new cube for this Cognos...so of course, in addition to IT, there have to be some people from us to tell them, what we want there. Generally speaking, you have to include financial view in these project teams, when you are developing new tools." (mill controller B)

> "In these systems' developing processes such as ERPS, which outcomes are utilized by controllers, so definitely they should be strongly involved in these...otherwise they won't get the data, what they want and need. But then there is plenty of developing work related to our transaction processing, and then the role of controllers is naturally smaller...and conversely, the role of FSS people is bigger. But when we are talking about those systems, which produce information for controllers' purposes, so then their role is undoubtedly central." (director of group business control)

Moreover, it was noted that instead of titles or job descriptions, participation in these system projects might actually emanate from personal competences to contribute to these processes.

> "Well, actually I am pretty much involved [in the tools' developing projects]...in this department, there is only me and xx capable of doing these. So I don't know, whether it is actually related to title or job description...but I think it is more because I have some skills to do these. Even if my job description would be something else here, I would be forced to deal with these anyway." (functional controller A)

Most importantly, the benefits regarding organizational learning from the implementation and development processes of new tools were extensively acknowledged. First of all, these projects may considerably facilitate interpersonal networking and information exchange.

Moreover, these organizational events might assist in locating opportunities for streamlining and rationalizing operations.

> "Well, besides the learning related to substances and systems themselves, these processes are really good opportunities for integration; people are discussing with each other in different places and at the same time, they might learn something new. And you learn to know people; it is important feature per se. So you become familiar with the network...and you will get acquainted with, whom to ask certain specific question. In my opinion, in these system projects the system itself is the thing we are doing, but the greatest benefits comes from this networking." (divisional controller B)

> "Not just that your technical understanding will increase, but also your knowledge about the processes, so why are we doing things this way. Actually it was pretty much the same in Sox project, when the processes were depicted...and then people woke up to realize that, this is the way these processes should really be done. And then you might realize opportunities for making those processes more efficient." (functional controller A)

5.2.4 Non-financial measures in contemporary performance evaluation

Non-financials were considered essential part of the company's reporting patterns, not least because the organization has strong engineer-led traditions. Furthermore, it was widely argued that the understanding of operational measures is undisputedly necessitated in getting the full picture of business causalities in today's complex business environment.

> "Let's say that they [non-financials] are part of our monthly reporting. We are kind of summarizing these figures; what is our utilization rate, what is our daily production, what is the wastage...These are one essential part of this job, and you have to definitely understand their significance and impact on this whole palette." (mill controller A)

> "Well, we have these key ratios related to our operations like production efficiency...and we have plenty of this kind of ratios. And these are deeply embedded in this organization, because this is a really engineer-led organization. So that is why, these kind of operational figures are well-understood here." (divisional controller A)

Moreover, under certain operations and functions the non-financials might actually be the only available indicators of performance. That is because the changes in operating drivers might not be possible to translate into financial numbers.

> "And the same applies naturally in logistics...we have the number of damages and so on, which are purely engineer type of measures...or you know prime routing; how much paper we have been able to export through our optimal routes. So we have plenty of non-financials. And actually it is the only way, especially where there aren't any sophisticated accounting systems available, to get into the performance...because it requires a lot from your systems to get the financial consequences from there. And if you don't have such a system, then you have to rely on other existing measures." (divisional controller B)

Most importantly, the non-financials may considerably facilitate the spread of commercial thinking and 'money does matter' attitude into the operations. By showing the linkage between operational drivers and financial results, controllers are in a position to boost

financial awareness among line organization. Simultaneously, the controllers themselves are able to probe deeper into the performance drivers by actively utilizing operational measures.

> "Yeah, I think that balanced scorecard is really important for finance people to be involved in...you know, you cannot divorce financial results from operational results...because they are sort of intertwined. So I think it is sort of a new role for finance people to be able to show those connections between the operational results and the financial results...in a creative way, that the line managers can understand that connection between these two. Let's say, that your efficiency is not where it should be. I think that the financial managers can do things like showing the line managers that one percentage increase in your mill efficiency can increase your monthly profits by e.g. half a million dollars. So you have to be able to translate the changes in operating drivers into numbers...so that they know where to focus on their attention" (vice president of finance)

> "Well, I might be a bit poor 'number man' in a sense, because I would say that numbers are only the final outcome of calculations...or that profit or saving is only the outcome of calculation. But it should be more like taking care of that the things are done properly. So it's true that you should focus on affecting the drivers behind the performance. It is comparable to medical treatment; you shouldn't just concentrate on nursing the symptoms of sickness but to prevent sickness beforehand." (divisional controller B)

5.3 Main characteristics required from present-day controllers

The decentralization of controllers closer to businesses and the intensified involvement in processes outside the accounting department are transparently reflected in the personal requirements of contemporary management accounting professionals. Consequently, the social skills were considered to be the absolute precondition for effective business control. Moreover, the controllers should not stick too tightly to details in the contemporary settings, but the ability to understand entities was prioritized.

> "Well, in this position you have to constantly deal with other people, and that is why the 'good guys' are managing well here, even if you aren't possessing great skills in accounting. So I mean that kind of person will come off better here than some quiet guy with excellent grades from university...thus, the networking skills are very important, because you have to come along with even difficult people." (divisional controller B)

> "I mean you have to be able to piece together and manage totalities and aggregates...and then you have to possess some basic skills such as language proficiency and preparedness to perform, because we are operating in a huge global network. And naturally you need some flexibility and adaptability as well, because you are involved in many things and sometimes your working days are stretched." (mill controller B)

Furthermore, the need for analytical and future-oriented thinking in the current dynamic environment was brought into the light. It was recognized that the past-oriented variance-analyses per se do not add enough value for the decision-making purposes, but the contemporary controller must provide the management with numerical scenario-analyses.

> "I think that nowadays the main characteristics are welling from the analytical skills. It isn't sufficient at all in today's business, if controllers are only focusing on stating historical figures and preparing reports based on those. So you must have certain analytical view on, where the business is going. It is essential knowledge to be able to translate the thoughts presented in management team meetings into monetary terms and profit terms. So I mean, controller is the key person converting visions into the concrete figures and measures. This kind of knowledge is absolutely required today." (director of group business control)

Most importantly, the controller should gain the status of being part of the team. The interviewees strongly highlighted that the credibility in the eyes of line organization should be deserved in order to be capable of operating effectively close to business.

> "I think that probably the most important trait that they have to have is integrity...so that their business partners see them as people, who are very ethical...and they sort of set the roles, set the examples. They are not trying to bend the rules, they are not trying to, you know, make something that is pretty black or white, so they are not trying to change it to grey...so first of all, they must have a lot of credibility so that people actually see them as people they can trust." (vice president of finance)

Moreover, a contemporary controller should abandon the traditional 'policeman' mindset in the present-day organizational context in order to build up intense interpersonal interactions with line personnel.

> "But then you know, I think that they have to be very approachable. I think maybe in the old days the controllers were maybe sort of sitting up on this ground and sort of saying that you cannot do this and you cannot do that...and kind of ruling with the iron hand, they were kind of seen as policemen instead of the business partners. So I think that they need to be approachable in the way that the line management feels comfortable in telling them about their plans and bouncing out ideas to controllers....so that they are seeing someone, who is part of the team instead of a cop, who kind of looking over the shoulder all the time." (vice president of finance)

However, the controller has to keep in mind his or her dual role in the organization. The controller has considerable responsibilities in control processes too, which necessities a bit tougher attitude towards line management sometimes.

> "So they [controllers] must have good social skills, but having said that, they also need to have this very fine line between...you cannot just always be somebody's friend, because if you try to be their friend, then maybe they are going to think that they can cross over you. It is a really fine line to walk, and you have to control the business and you have to know, when to say no...but you have to be able to do it in such an impersonal way, that they do not feel offended...and it is hard to do sometimes." (vice president of finance)

Interestingly, the interviewees were surprisingly unanimous concerning the extent of IT skills required from contemporary controllers. The basic technical skills were considered adequate and hence, the special expertise on IT was not necessarily needed. However, it was recognized that the excellent IT-systems knowledge would be an extremely valuable asset in

controller's work. Fundamentally, controllers should possess a sufficient IT understanding to be able to justifiably evaluate the reliability of the data.

> "I think that the common IT skills are sufficient, but nowadays some kind of basic understanding is naturally required concerning the processes behind the systems, so that you can assess the quality of data. The main requirements come predominantly from this purpose." (director of group business control)

> "They [information technology skills] are quite comparable to every other areas of special expertise, so you gain huge benefits if you have them. So it is a considerable advantage, if you know the systems and the logic behind them. Then you can retrieve data much more effectively, and you kind of understand the relationships between different factors better." (divisional controller B)

Consequently, the capability of extensively utilize the common software such as Excel and PowerPoint was prioritized. Especially the contemporary nature of controllers' job as an essential part of management teams demands good communications and presentation skills. Thus, the competence of presenting your message in an understandable form was considered extremely valuable in the contemporary environment.

> "And of course you have to be able to use Excel really comprehensively...and actually one extremely important is PowerPoint, because everything goes eventually there. So you have to be able to do visualizations and communications is essential too. You have to get your message through by simplifying it to the format, which enables the listener to get the point...it isn't useful at all to possess some new idea in your mind, but you have to sell the idea to others. Only then it can benefit the business." (divisional controller A)

5.3.1 Significance of broad business knowledge vis-à-vis detailed accounting knowledge

It was generally acknowledged among interviewees that the extensive understanding of the business logic is extremely crucial for today's controllers. Despite that, the importance of accounting knowledge cannot be underestimated either; the common understanding of IFRS for instance is definitely needed in order to operate effectively as a controller. However, due to the definite split between business controlling and transaction processing, the controllers are required to place their emphasis increasingly on the business support. Hence, the more profound and specific knowledge of financial accounting is nowadays possessed by centralized service centres.

> "Well, the accounting creates the foundation, but you don't have to know all the details, because we have separate professionals for that purpose. But you have to still possess basic knowledge to understand where the figures come from...more important thing is however to understand the business-side...and actually to understand the linkage, I mean that you are able to model the business in financial language." (divisional controller A)

> "Maybe you could say that it is continuously going to that direction of handling big pictures. But nevertheless, you must have a good basic understanding of the IFRS and

> accounting in general. However, we have FSS taking care of financial accounting, so they are primarily dealing with these issues and having this kind of role...so you could say that our focus is more on comprehensive business steering, but naturally the accounting knowledge should be involved too...that you can understand what they are doing and give some input to people operating in financial accounting." (mill controller B)

Although the tendency is towards shifting the technical transaction processing to separate entities and requiring the business controlling to be increasingly involved in broad business issues, the recent corporate misbehaviours have facilitated the increase in management accounting professionals' control-side duties. Consequently, the requirements from controllers concerning the accounting skills have intensified again.

> "Well, you know, when you are looking around today, and you read about all of the accounting misstatements companies have done, because they interpret the accounting standards wrong...they didn't recognize revenue correctly, or they didn't recognize cost correctly...and I mean it is huge. There are billion dollars restatements going on these days...so I think that the technical knowledge, you cannot downgrade it. I think you have to have that sound technical base right out of the shoe...that has to sort of be given...coming into this role, you have to have that solid technical footing, and you have to keep it up, because you know how fast it changes...but then you have to be able to layer on top of that." (vice president of finance)

Moreover, it was highlighted that one should not forget the primary role of controllers in the organization. The controllers are foremost finance people, and their main role in management teams is to introduce profitability focus and cost-consciousness. Thus, the common accounting knowledge should be controllers' area of expertise.

> "Well, I see their role in management teams, and when you think about the structure of management team, so a controller is however the one there representing the expertise of accounting...Also the broad business knowledge is needed in giving one's contribution to management team work, but you have keep in mind that there are plenty of business professionals in management teams. So you definitely need both skills, but you should not forget, in which role you are sitting in the team though." (director of group business control)

Interestingly, one controller reported that understanding of the business is not actually a prerequisite for managing his duties effectively. At the first sight, this seems to be quite consistent with the traditional view on 'bean counters', but after probing a bit deeper into the mindset, some decisive differences were brought into the light. First of all, the controller's own interest had pushed him to study the earnings logic and business causalities, even if the controller was not anticipated to know the business.

> "In my job it isn't actually essential to know, how we are making paper or how a boiler is working...such things are so far away from this job...but of course you are working at a paper industry company, so it is good to understand, how the products are produced and what kind of products do we have...you know, it is more like all-around education. The prices of paper and such aren't reflected in my job either...or of course they are shown in these processes, but they are just figures...and I put them together and run them through

> our systems...so it is the same process, whatever the numbers and prices are...but you know, it is for my own interest to understand this business." (functional controller A)

Moreover, it was stated that the accounting knowledge can be easily taught in business schools for instance, but the understanding of business logic can be only learnt by doing. Hence, the ability to effectively analyze and interpret figures evolves through experience; profound knowledge of business causalities enables the controller to point out the most crucial factors affecting the profitability and to critically evaluate the reliability of analyses. In addition, the interviewees highlighted the interpersonal relationships in internalization of business knowledge.

> "Well if somebody would replace me here, it would be extremely difficult to teach this job, you know. I have been here for two years now, and step by step I start to understand these operations and the business in general...well, I would say that somewhat 10-15% of this job can be taught, and those are the routine duties....and the rest comes from solely learning by doing...and you have to build your own network too...it takes time." (divisional controller B)

> "Some basic skills can be taught; the structure of income statement and so on. But on the other hand, the interpretation and analysis require that you have understanding and experience of the business...so that you are able to find the most essential things, which have for instance affected the profits. And at the same time, you are better equipped to critically assess the future...I mean the different scenarios....so you are capable of doing some sensitivity analysis. ..These things come with experience." (divisional controller A)

5.3.2 Acquaintance with external business environment – markets and customers

The contemporary controllers' practices are directed increasingly towards external processes of organization, which fundamentally enhances controllers' participation in sales and marketing issues. Consequently, it was largely stated that being familiar with markets and customers is nowadays one of the most central requirements for effective business controlling. By being acquainted with the external business environment, controllers can better figure out cause and effect relationships prevailing in the business and affecting the performance.

> "Knowing business and markets is essential part of this job, and it is sort of continuous challenge for me as well. You know, probing deep into the business and sparring there. And recognizing the right things and bringing them into the light. For instance, if we find out that there is something deviating in our sales in Russia...then we have to analyze it; how is our sales margin etc... I mean this is really important and challenging. So we need this kind of knowledge for sure." (mill controller B)

However, the contemporary position of controllers as part of the management teams facilitates markets and customer knowledge creation. By regularly interacting with people

from various departments and functions, controllers are in a fruitful position to absorb information.

> "Definitely it [knowledge of markets and customers] is important, but actually it comes naturally, because their position is extremely good in division's or mill's management teams...and by actively participating the management team work, they automatically start to understand the regularities of the business and market conditions. But it is self-evident that they have to be active by themselves, so that they are keeping track of situation and acquire sufficiently information all the time." (director of group business control)

Finally, the traditional borders between production people and sales personnel have faded away, and the cross-functional co-operation have considerably gained more ground. Consequently, the interviewees underlined the need for contemporary controllers to actively participate also in sales processes, instead of being solely concentrated on production-side operations. The controllers with adequate knowledge of markets and customers can effectively spar the sales people and critically evaluate the lucrativeness of new business opportunities.

> "Although we do have sort of centralized sales here, we still have to possess certain knowledge by ourselves in any case...so for instance, if we are offered some lousy business, then we have to notice it immediately. So if we take some new businesses, of course we as a finance people participate also in evaluating the attractiveness of them...it isn't solely that sales people are selling and we are only producing." (mill controller A)

> "I could honestly say, that mill controllers must also be involved in sparring the sales side; why do we have these customers and why do we sell there...you have to question, not to judge, which is usually the starting point...production blaming the sales people, why do you have stocks and so on...but there are naturally reasons for that...for example, if you sell a huge lot of profitable product A, so you might have to sell also a bit of product B, which might come from different mill. Then it is more advantageous to another mill. It is practically really important to understand and accept these kinds of regularities." (functional controller B)

5.4 Modern roles controllers play in the organization

Most interestingly, the interviewees strongly questioned and challenged the magnitude of the controllers' role transition from 'bean counters' to 'true business partners', which is widely-recognized among academics. The contemporary role as a full member of management teams was largely acknowledged, but the reflections of conventional 'bean counterism' into prior practices weren't experienced as such. Thus, the existence of traditionally defined 'bean counter' was critically impugned.

> "And I think that it is a little bit of fallacy too to say that today we have this emphasis on business control, and we have this definite split between the accounting operations and the business control...we really did that before too...we had analysis back then too...we

had revenue analysis and budget analysis that dealt with costs...and then we had people on the accounting operations side. You know, maybe there was a little bit of a blur of that line at that time...nowadays it is definitely more split...So I definitely think that there is definitely more solid line drawn between the two today...but I don't think that it is true to say that in the old days they [controllers] didn't need to know the business...that is not true." (vice president of finance)

"Well, I have been watching the development of accounting for 20 years now, and I have to say that there is actually nothing new about the recent business control -thinking and the increasing focus on business orientation. If you consider the time in 20 years ago, exactly the same issues were important in those days. We have had people producing basic reports, and then we have had more advanced people capable of looking into the future and combining business view into their work. So I don't think this current trend is unique or totally new." (director of group business control)

Nevertheless, the controllers' role of instilling cost-consciousness and 'numbers do matter' attitude into the organization was prioritized in the contemporary settings. Hence, the controllers are expected to facilitate general understanding of the performance in the organization. Moreover, the controllers should make line management increasingly accountable for acting upon the numbers.

"Definitely, I think that it is a role of controllers to help the line management to understand the numbers...and I do think that in years ago we didn't do as good job there...partly because of technology...you know, we used to produce the reports that were this thick...and the only ones who could take that and make it into something understandable form, were financial people. You couldn't expect the people in the mills for instance to be able to make any sense of those types of reports...I think today it is much more expected that managers in the line organization will understand numbers, and they are expected to act on them...and that puts a burden on financial people, it is the responsibility of financial people to make sure to give them the numbers and in the way that they can understand them and act on them." (vice president of finance)

Consequently, the controllers can act as catalysts for streamlining operations by proving the line managers with objective numbers telling the truth of current state. The understandably communicated financial and operational measures shift the responsibility to the line management to probe deeper into the causes and act upon them.

"I think if there is any sort of areas of our opportunity that I see more today, is that there is more ability to hold line management accountable for certain things...because the numbers are telling the story...okay, here is what you got. You know, lets say we are talking to a maintenance manager...and he knows that his costs are over budget, but he cannot figure out why. Well, as financial people, we can show him that it is a combination of rate and usage... so he is paying too much overtime, which increases his rate...and his usage is too much, it is taking too long to do the job. Okay, well then when you have told him that...then the accountability is on him to do something about that. We can only go so far to help people understand why they have not met their targets...but then it is on your responsibily Mr. line manager to do something about it. I'm not always seeing that next step today, or I'm not seeing enough accountability in line managers to act on these numbers." (vice president of finance)

5.4.1 Contemporary controllers acting as' true business partners'

It was widely-recognized that the controllers can nowadays act as 'true business partners', mainly due to their position in management teams. Moreover, their primarily role was considered to critically question and challenge established assumptions by occasionally bringing into the light even awkward topics.

> "That is absolutely true, and I totally agree with that [controllers as true business partners]. Controllers play central roles in each management team. Well, in management teams we discuss about where we are now, and then analyze it...and then we create some action plans if needed. And once in a while we also have to bring into discussions uncomfortable issues. So it is part of the controller's role. Furthermore, we are highlighting cost-consciousness in the management teams; how much costs will incur if we implement this or that. Controller has to also challenge traditional thinking in organization." (mill controller B)

However, the controllers' participation in management teams is not actually a completely new phenomenon. In certain mills, the management accountants have been active members of mill's management teams already for decades.

> "As I said earlier, we have had our own management accountant or whatever he was called earlier here at the mill side since 1975...so right from the beginning, and all the time he has been part of the management team. So definitely this role as a true business partner is important, and this trend will even strengthen in the future. The business has been getting tougher and tougher all the time, and discussion is more and more on euros nowadays. So in that sense, our role has probably emphasized. " (mill controller A)

Nevertheless, the controller function itself is relatively new in the case company. Thus, the interviewees were pretty unanimous that the controllers' role of acting as equal partners for management will considerably strengthen in the near future. Moreover, one controller hit the point by highlighting that controller-title is nowadays extensively used in completely various jobs. However, the active participation in management team work is predominantly suitable for business controllers.

> "At least controller should act as a business partner, but our controller function here at UPM is relatively young, actually it is no more than 5 or 6 years old....but that is the way we are going. Of course the word controller is used really extensively, you know it covers actually everything from ledger-keeper to CFO. But this true business partner role is basically for business controllers. So business controllers are increasingly moving to that direction." (divisional controller B)

Moreover, one interviewee stressed that the extent of true business partnering being reflected in every-day practices is substantially dependable on the organizational level, in which controller is operating.

> "During the last few years, the controllers' role as a business partner has activated in my opinion. So the trend has clearly developed towards this direction. But still I have to say that this is more clearly reflected at the division level, and maybe there is still way to go at the mills." (director of group business control)

Most importantly, the strong support from the top is an absolute prerequisite for the active service role of controllers to spar, challenge and question. Controllers are the persons in management teams, who are expected to bring on the table uncomfortable issues of falling short of targets or incurring too much cost. Hence, the top management should strive for providing an encouraging and backing atmosphere in the management teams.

> "I think we are getting better at it [sparring & challenging management]...but I don't think again we are as good as we need to be in that role...and part of it is just that we need to get more comfortable for doing that...and an another part of it is that we probably need more support from the top. You know, because if you are sitting in a management team meeting and I'm there and the sales people is over here, and maybe I got some data that shows that our prizing is not where it needs to be...and we are talking about this information...I think that the sales people for instance are feeling little, you know intimidated...I might think that I'm trying to show, where those opportunities for improvements are and he is feeling like I'm criticizing. And if lets say the CEO doesn't set the right tone in that meeting in a sense that the information is helpful and it is helping us to determine, what actions we need to take...you know, where our opportunities are. If the controller feels that he or she isn't getting enough support from top management, then he or she is probably not going to speak up next time." (vice president of finance)

Finally, it was also acknowledged that the personal characteristics play an important role in defining controller's capabilities of acting as 'true business partner'. Not every controller is either willing or possess particular skills to take that socially active role in the organization.

> "Well, it really depends on each controller's own personality. In my opinion, this organization provides you the circumstances of being true business partner, but eventually it is dependable on each controller's competence and willingness to take that role...or maybe you would prefer acting in some other role. However, the demand is definitely for this true partner." (divisional controller A)

5.4.2 Need for traditional 'bean counters' in the contemporary context

Although some traditional competences and features of the 'bean counter' controller was observed from the field, there was not any evidence of clearly identifying the stereotypical 'bean counter' in the investigated contemporary context. The empirical probing into the daily-practices exposed some conventional 'bean counter' controller processes and distinctions, but most interestingly, the empirical reality revealed simultaneously considerably more non-descriptive attributes to the 'bean counter' concept.

> "Well, it is pretty much producing the data, so it comes out of the systems, and then somebody else will analyze it...and say, what we are going to do with that data. I don't know, is this a bit more traditional role, I guess. On the other hand, I have to of course

> looking around the numbers and see if they are, you know sensible. So in that sense, I have to possess a decent understanding to do that. Especially when we are preparing our monthly reports, and if I spot something extra-ordinary, so then I have to communicate with different people to find out reasons for that." (functional controller A)

Moreover, the two-fold nature of controller's duties was felicitously illustrated in the mill controller's comment concerning the balance between withdrawal drudgery with figures and socially engaged business partnering.

> "Once in a while I have to dig and 'play' with the figures, and drill deeper into the transaction level in these systems...and somebody might think it is boring...but it is part of this job, so you have to be able to do the both; being extroverted and social, but sometimes you have to like plod on independently." (mill controller A)

However, the difference between the business controller and traditional 'bean counter' was considered definite in the contemporary context. Although the business controllers are still involved in producing routine reports to some extent and drilling deep into the transaction level once in a while, their contemporary role goes far beyond that. Business controllers' focus is nowadays increasingly on actively participating management team work, while the financial accounting staff and centralized shared services are taken primarily care of statutory reporting and transaction processing.

> "Actually I think this kind of role [traditional bean counter] is definitely in the background in this job...of course, these kinds of people are still needed, but their place is increasingly in operational accounting and financial accounting, so in financial shared services. Well, if I separate these different areas of expertise, so the processes of business controllers are constantly going to the direction of...how would I say it...well, there isn't too many finance experts at the mills nowadays anymore, so that is why you just cannot be bean counter." (mill controller B)

> "We need that kind of personnel [producers of data & routine reports] in our Group Finance, who are truly responsible for group accounting and such...so there is definitely room for everybody...that is for sure. We will continuously need those precise and accurate accounting people, who aren't on the other hand feeling comfortable on standing on the stage and keeping presentations. We definitely require them, but they should possess extremely good skills at accounting, maybe even lot better skills than business controllers have." (functional controller B)

Most interestingly, the interviewees strongly highlighted that the traditionally defined 'bean counter' is dead in the contemporary settings. Nevertheless, they were unanimous of the necessity of precise and independent data producers also in the future. Moreover, the interviewees presented that these routine processes are increasingly handled by shared service units. However, the requirements from these people operating in the centralized service units go far beyond the standards of traditional 'bean counters'. Thus, the concept of 'bean counter' is not valid in the contemporary context as such, but the notion needs to be redefined and updated to correspond with the demands of present-day business environment.

> "I don't think that it is possible to be a traditional bean counter anymore, not even in financial shared services. Those roles are becoming more and more challenging as well, because the scale is much more extensive nowadays. You aren't just responsible for one unit's accounting operations, which you are totally acquainted with...but you have a very wide-ranging palette of different tasks, and moreover the basic processes are increasingly automatized. It is more like finding errors and solutions. And thus, you need to have networks. So these processes are often quite complex and require advanced skills. Therefore, the traditional role is fully disappearing, it won't exist anymore. Most of the duties require extensive knowledge nowadays, and you have to have sort of professional touch to your work." (divisional controller A)

> "Of course [traditional role most suitable for FSS], but they need to possess communication skills as well. Especially, if you are working in managerial position, so you definitely have to manage and handle your own team, and be encouraging example for them." (functional controller B)

Moreover, it was largely stated that the 'contemporary bean counters' possessing high level of qualifications are definitely needed in the organizations now and in the future. Hence, there seems to be a tendency towards creating a 'middle role' for controllers operating in the transaction processing and financial accounting (see Vaivio & Kokko, 2006). Their new role lies between the isolated and extremely precise processing of qualitative date and the active participation in management team work.

> "Well, it certainly depends on what do we mean by controller in the first place, so for instance in internal control operations or in group accounting, where you are dealing with the US requirements from financial information. So I think this traditional type of controller [bean counter] is still needed there. And we might have a lack of those people soon, because everybody wants to be you know this business, business, business...because it is cool and trendy. So this production of core data and financial information are left in the background, although it is the most important thing for the company overall. I mean this job we are doing here as business controllers is however secondary in an accounting. That is why we should increasingly focus on ensuring the availability of bean counters and they should be qualified...not you know second class employees." (divisional controller B)

Moreover, the controller's personal characteristics were considered decisive in defining the role, in which the management accounting professional acts in the organization. Everyone might not be willing to and capable of operating as a socially engaged true business partner, but they might prefer crushing numbers in isolation.

> "If you think about mill controllers for instance...is he focusing on producing forecasts, analyzing their operations at mill or participating the mill management work...so it basically depends on your personal features. So are you more like this bean counter type of controller or this participative controller, who likes to spread his message around the company. I could imagine that the divisional level controllers should be more like these proclaimers, but in the background there might be people more into producing the date for them." (functional controller A)

> "In my opinion, it pretty much depends on how you start to develop your own role...and of course your personality is decisive, so if you don't want to express yourself very actively, it is possible too...and vice versa...definitely there are totally different personalities." (mill controller A)

To sum up, it became widely acknowledged that 'bean counter' mindedness is still required in contemporary organizations, although the concept of 'bean counters' needs to be inevitably redefined. However, a definite division of labour between a business controller and a 'contemporary bean counter' was indicated. Hence, it could be fairly suggested that two separate professions have emerged.

> "Oh definitely (bean-counters are still needed), you know that analytical role...looking behind the numbers, what do the numbers mean...and manipulating the data in such a way that it becomes meaningful information instead of data...and I think that the analytical bean-counter mind is very much needed. I think the problem becomes, when in one person you are expected to see the ability to be a bean-counter as well as the ability then to take that information and get others kind of understand it...because you have to be sort of outgoing and you have to take a risk in getting others maybe to see something in the way, which might not be a popular view...and can you find that in one person...both of those abilities...analytical abilities as well as the people's skills." (vice president of finance)

Although the 'bean counters' operating in the contemporary context are also expected to possess interpersonal capabilities, the qualities of business controllers are still in sharp contrast with 'bean counter' mindedness. Thus, the emergence of two different professions is understandable.

> "I think that we are always going to need bean-counters, but they are going to maybe have to be in the background...producing all this wonderful stuff...but maybe they are not the right people to be sitting in the management teams and communicating with the line managers. You know, maybe that needs to be somebody with different skills...and if you can get all that in one person, it would be marvellous. But I think that they are too different personalities quite often; someone who has the occupational interest in gathering and analyzing data, doesn't always have those skills needed in communication....maybe we are trying to get a tiger with certain stripes going this way and certain strips on the other hand going that way...and you are never going to find a tiger like that." (vice president of finance)

5.5 Key driving forces towards contemporary controller function

The interviewees reported multiple grounds for the trend towards empowering business controllers increasingly to support businesses and creating centralized service centers to deal with transaction processing and data production. Furthermore, the controllers recognized the significance of both internal and external driving forces. This divisional controller's comment illustrates quite aptly the manifold nature of the transition towards contemporary practices:

> "Technological development and new information systems have made possible to separate these roles. And the second thing is that the financial knowledge is nowadays very strong in the business organization...it is far stronger than before. The third thing is that the competition is extremely intense today, so we need to enhance our cost-consciousness and understand the opportunities we have. Finally, the fourth is this

> external environment...I mean shareholders, who are nowadays more actively involved in the company, and they require more timely and multifaceted information about e.g. future prospects. Thus, we have to possess as accurate picture of our future as possible, so that we are able to communicate the prospects to shareholders." (divisional controller A)

5.5.1 Economic pressures driving controller function to change

It was widely-recognized that the competitive environment has changed quite dramatically during the recent years. Consequently, the interviewees acknowledged that the pressures to remould the controller function have been considerably high too. Challenging market conditions have emphasized the significance of profitability thinking in the organization. Hence, a strong need to reconsider the role of controllers has emerged.

> "Well, if we think about this company, so earlier it has been relatively easy to succeed...but now the times have changed, and it isn't so easy anymore. We are forced to compete really hard. And so the vocational proficiency of finance people is emphasized too. We are forced to make more complex and difficult analyses constantly...and we have kind of waked up that we aren't making paper but money...or try to make money...engineers are able to make paper, but finance people should be capable of telling how to do it most profitably." (mill controller A)

Moreover, the intensified competition and more complex business environment have forced companies to sophisticate their performance analysis. Controllers have been increasingly required to look beyond the figures by linking operational drivers to financial figures. Consequently, the need for controllers to highlight, how the measures presented in monthly reports are reflected in the every-day practices, has been boosted. In addition, the magnitude of company's strong traditions in driving change towards contemporary controller function is well illustrated in the following comment:

> "I think that at least here in the smokestack industry or let's say in the basic industry, the business has been primarily run with production-led perspectives. It has been enough that the production has functioned well, and the finance has been left in the background producing some monthly reports. However, this has changed step by step, due to the tightened environment, accelerated pace in the business and globalization of companies; companies have realized that they must see behind the numbers and understand cause and effect relationships. So the figures should be connected to real-life consequences. And then the general accounting function responsible for both ledger and management accounting had no more time to do everything....that is why the definite split was needed." (divisional controller B)

5.5.2 Technological and structural changes in the business environment

Rapid technological development was considered to have significantly remoulded the controller function by automatizing routine reporting. Hence, the interviewees experienced

that nowadays they can focus increasingly on analyzing and interpreting figures. Moreover, the general efficiency-thinking and cost-consciousness have put substantial pressure on streamlining the accounting organization too. Thus, the roles and processes of accounting professionals have been refined to meet the contemporary settings.

> "Well, crushing numbers and producing routine reports is getting more and more automatized...so we are kind of receiving the data from systems, and thus we can focus increasingly on the more essential issues...so basically the systems' development has brought us at this point [true business partners]...and of course, the structural change. Organizations become smaller, so we aren't anymore in the situation of having huge accounting departments in every mill. This isn't just possible anymore in the current environment. Routine invoice scanning and accounts payable & receivable have been centralized to FSS due to cost-saving ambitions...thus, the general ledger tasks and business controlling have been separated." (mill controller B)

> "It is really good question, and abruptly I would say that the systems have developed. So routine reporting is needed less and less. But due to legal structures and such, finance people are still needed. However, the number of finance people needed is reducing...and that is why they need to change." (functional controller B)

Furthermore, cost-conscious attitude has increasingly spread into the whole organization, which has made business managers more and more accountable for their own costs. Hence, controllers are left with more time and effort on evolving their advanced roles.

> "All the time, the functions are expected to take more responsibly on analyzing for instance their own costs by themselves. So accounting knowledge should be possessed widely in the organization, you just cannot expect anymore that finance people will do your, let's say maintenance's cost control, but you have to be capable of finding the information yourself. Then finance people will have increasingly time to focus on more essential issues." (mill controller B)

Finally, one interviewee highlighted the general need for efficiency in the current business environment combined with the opportunities provided by technological progress. Thus, the contemporary controller function can be regarded to have emerged through organizational rationalizations.

> "I think it [change towards contemporary controllers] is just emanating from the general demand for efficiency. And the external environment has changed too, in a sense that the systems have developed. Now we have these genuinely global systems, which work really well also in the large organizations. And these are absolute prerequisite for moving to centralized service centers in the first place. So the technology has advanced so much that now we can now handle our invoices globally." (director of group business control)

5.5.3 Institutional factors driving and fortifying the trend

It was acknowledged that the stakeholders are increasingly requiring more and more timely and better quality information. These quite considerably increased disclosure requirements are

at least partly repercussions from US accounting scandals. Moreover, the stakeholders are nowadays more actively involved in the business. Consequently, the need for business controllers to provide more multifaceted analyses and illustrations has substantially enhanced. Hence, the emergence of business controllers can be seen as a response to more intensified transparency requirements demanded by different stakeholder groups.

> "Oh well, the shareholders are demanding results. I mean that the shareholders are stronger today than anytime in the history...you know, demanding more transparency in the business. They are wanting to see the numbers from the different perspectives, they are wanting to see more of balanced scorecard, and they are wanting to see more of the relationship between operations and financial results...and I just think this transparency demanded by lenders and shareholders...and employee groups and unions...everybody is demanding more transparency...and I think that is what is driving this need for business controllers and the things that business controllers do...so I don't think that is going to go away." (vice president of finance)

Moreover, the technological progress has facilitated the shareholders' increased demand for high-quality information. More advanced systems have made possible to provide stakeholders with accurate and timely performance information. Furthermore, the future-orientation is reflected in the stakeholders' requirements as well. Thus, the controllers' role of providing scenario analyses has gained considerable ground.

> "Well yes, but it is emanating from the systems' development as well...so the standards of shareholders have increased, because today it is possible to produce data of extremely good quality. The current information systems can provide us with high quality picture of company's financial state relatively promptly. And naturally the role of controllers has grown simultaneously, because both shareholders and top executives demand high quality information of company's performance. So their role is more important today, and as a whole preparing analyses and looking into the future have gained more ground gradually. So I have to admit that the importance of past-orientation is getting smaller and smaller, and the focus is increasingly on looking forward...the mirror-view has diminished all the time." (director of group business control)

Benchmarking and imitation of other companies' practices were recognized to have influenced the rapid expansion of business controller ideology. Moreover, the mimic effect of professionalization was brought into the light. Most interestingly, the cynical attitude towards the constant emergence of various fads was represented as well. However, most of the interviewees were unanimous that this current trend has entailed plenty of beneficiary outcomes to management accounting practices.

> "It [professionalization] has definitely affected...I mean that almost every company is organized in a similar way in practice. So one company initiates, and then the rest will imitate. And I'm sure that soon there will be a new thing again, which starts to expand among companies. Well, it is difficult to say, what is the starting point, but it is totally natural that this kind of benchmarking exists. Because I see that this current model is substantially more effective than the previous ones." (divisional controller A)

> "Yes I think that it [benchmarking] really exists, because somebody is always first...and actually we started this quite late, so we got along with these local financial directors really long. But these fads are emerging and disappearing...so I don't know what is our destiny in the future. But I see that the controller's role extremely close to business has already deeply embedded to our attitudes." (divisional controller B)

> "I guess this [contemporary controller trend] is comparable to other fads such as everyone should have highly advanced ERPS and so on...once in a while you must have matrix organization and then again line organization is preferred...so maybe this is a similar fad as well...this might be a bit cynical opinion though." (functional controller A)

It is actually quite self-evident that successful corporations' practices are widely imitated. Moreover, it was interestingly pointed out that in the huge multinational companies the business controllers are involved in decisions with considerable repercussions for the organization. Thus, the controllers can add substantial value for the company by supporting effectively the decision-making.

> "Well, I think that Nokia has shown the way here as well. I have the impression that Nokia has hundreds of controllers, somebody mentioned that they have 700 overall...but all a way round, in these high-volume businesses you can earn your yearly salary just by making a couple of great decisions. My boss constantly says that a controller will always earn its salary." (functional controller B)

However, the interviewees reported that recently this development towards true business partners has even gone backwards to some extent. Coercive regulations such as SOX have put the focus increasingly on controls again. Nevertheless, the controllers experienced that increased controls are actually welcome in their point of view, because at the end of the day they hold the utmost responsibility for correctness and reliability of figures.

> "Actually SOX has moved this development slightly backwards, because many controllers have already felt that they are quite deeply involved in the business...and now when this is moving a bit backwards, they are scared of becoming polices again due to these increased controls. But I don't see it that way however. I think this is a combination of controls and business support, because eventually it is the interest of business manager to take care that controls are functioning properly." (divisional controller A)

Moreover, these coercive regulations force companies to critically question and examine their processes and assumptions. Thus, these projects can be fruitful opportunities to streamline operations and assess the functionality of controls.

> "They bring back the control-side, but usually we think that controls are bad and thus, controls are considered purely negative. But I think that it is also good thing to have projects such a Sox. Then you have to go through your routines, processes and controls. Actually there are two advantages of these projects...of course the first one is that you are able to define the places with highest risk for misuse...and the second is that you must harmonize your processes and by doing that, you will probably find out more efficiency to your operations...and these are extremely good opportunities to assist you in the business-orientation as well, because during the projects you will observe certain problems, which can be then solved and after that processes are maybe running faster and more effectively." (divisional controller B)

6. THEORETHICAL INTERPRETATION FOR EMPIRICAL FINDINGS

6.1 The existence of transition from 'bean counters' towards 'true business partners'

This study indicated a strong support for the arguments of identifying major changes in management accounting during the last decades (see Burns & Baldvinsdottir, 2005). More specifically, the case company has experienced most remarkable transitions in their management accounting practices not until relatively recently. The implementation of global and harmonized data processing systems such as SAP facilitated the need for redefining the procedures and the roles of management accountants (see Burns & Vaivio, 2001). However, the empirical findings notably illustrated the complexity of management accounting change (see Granlund, 2001). The study observations suggested the change in management accounting practices as an incremental evolutionary chain of development (see Burns & Vaivio, 2001). Hence, the magnitude and nature of change recognized in the organizational context was contradictory to a more revolutionary view of remoulding the management accounting practices presented by many academics (e.g. see Granlund and Lukka, 1998a).

Most interestingly, the empirical evidence did not recognize the ground-breaking nature of the change in controller function. In literature the business-oriented disposition of contemporary controllers was considered the most vital contrast to traditional 'bean counter' mindedness (see Granlund & Lukka, 1998a). Nevertheless, the tone from the field strongly signalled that the controllers have been required to know the business for already many decades. Thus, according to this study it is a bit fallacy to argument that years ago controllers did not need to understand the business (see Järvenpää, 2001). Moreover, the traditional 'bean counter' stereotype is explicitly defined as "an accountant who produces financial information which is regarded as of little use in efficiently running the business" (Friedman & Lyne, 1997). Consistently, Granlund & Lukka (1997) offer a depiction of traditional accountant by highlighting the past-oriented information collecting and processing nature of duties. However, the study perceptions suggested that the controllers did various revenue and cost analyses back then too, which were highly valued in managing the business. Furthermore, the controllers needed to understand the sales and marketing side as well in order to apprehend the main drivers of customer and product profitability. Hence, there exists an interesting contradiction between the empirical findings and the academic arguments, which highlight the

management accountants' traditional orientation towards inner processes of company (see Granlund & Lukka, 1998a). Finally, this study revealed that already since 1975 some mill controllers have acted as a member of management teams, which increasingly challenge the revolutionary nature of the controllers' role transition.

In conclusion, this study clearly identified the change tendency in controller function and management accounting practices in general. However, the field observations did not suggest such a radical and epoch-making transition than widely-presented in the academic literature. The fundamental difference lies in, how the traditional 'bean counter' is defined. Instead of a historically driven accounting specialist producing unnecessary information in the past (see e.g. Friedman & Lyne, 1997), this study found evidence of a past 'bean counter', who understood the basics of business and markets and made various analyses also for business needs. Hence, the academics consider the change mainly as an increase in business-orientation, while this study regards the transition largely as a split between business controlling and transaction processing enabled by global information systems. Thus, two different professions have emerged; extremely business-oriented controller and contemporary 'bean counters' operating in shared service centers.

6.2 The nature of contemporary controller function

The empirical findings strongly acknowledged the existence of 'hybrid' controllers in the contemporary context. Consequently, the study revealed that both accounting knowledge and deep understanding of business operations are undoubtedly required from present-day management accounting professionals. (see Burns & Baldvinsdottir, 2005) However, the field observations indicated that the concept of 'hybrid' accountant was merely a rearticulation of the old practices. The mill controllers for instance have been required to understand the business logic for decades now in order them to be well-equipped to prepare profitability analyses. Moreover, the study interestingly highlighted that the contemporary business controllers do not have to possess detailed accounting knowledge anymore, but the profound understanding of business causalities is prioritized. This fundamentally reflects the definite split between business controlling and financial accounting in the contemporary settings.

The intensified co-operation with business managers within the product-stream was widely recognized in the study as well (see Granlund & Lukka, 1998a). This decentralization of accounting function was mainly enabled by implementation of global and harmonized information systems. Most importantly, the field evidence revealed that the considerably improved accessibility of data has made business managers increasingly accountable for their own costs and performance (see Burns & Scapens, 2000a). Thus, the tone from the field signalled that the contemporary controllers have more time to concentrate on analyzing and interpreting figures, when the functions such as maintenance are responsible for their own profitability. Consequently, the study suggested that the controllers' present-day role is increasingly instructive; spreading the cost-consciousness thinking into the organization was considered the most important duties of contemporary controllers. This educative expansion of the management accountant's job description is widely undervalued in most of the literature (e.g. see Granlund & Lukka, 1998a).

The traditional 'watchdog' duties were still acknowledged to be a central part of contemporary controllers' jobs. However, the nature of control processes differed quite drastically from the stereotypical 'bean counter' type of supervisory procedures (see Granlund & Lukka, 1997). Present-day 'watchdog' duties are mainly derived from SOX type of internal controls, which were actually considered quite fruitful project opportunities to enhance your business understanding by critically questioning and examining prevailing assumptions. Hence, the empirical findings gave support to the research conducted by Vaivio & Kokko (2006), which arguments that the core nature of contemporary 'watchdog' duties is nowadays build on social interaction and unofficial networks.

Nevertheless, the study observations were contradictory to the argument stating that the past-oriented routine reporting will constantly be top priorities of controller function (see Järvenpää, 2002; Granlund & Lukka, 1998a). The reliability of data was definitely regarded as extremely important, but the duties of 'historian' were nowadays responsibilities of shared service organization. Thus, this study's empirical perceptions did not subscribe to the view that controller must first take care of his 'bean counter' role and then expand his job description to more advanced duties (see Järvenpää, 2002). This research identified a contemporary business controller, whose responsibilities went far beyond conventional 'bean counters'.

This research clearly pointed out that controllers' participation in information system projects gave rise to substantial benefits for the organization. Firstly, the information gap between preparer and user was considered to narrow significantly, when controllers took actively part in developing stages by introducing managerial view to enhance information system's organizational validity (see Pierce & O'Dea, 2003). Secondly, the field perceptions suggested that the implementation process per se is fruitful for organizational learning and cross-functional networking (see Partanen, 2001).

Moreover, the tone from the field strongly indicated that relatively simple and traditional tools continue to be widely prioritized among controllers (see e.g. Burns & Yazdifar, 2001). Most interestingly, the empirical evidence revealed that controllers were not actually using ERPS extensively, and thus the impact of such integrated systems on controllers' duties was regarded as quite minor. These findings were relatively consistent with the study conducted by Granlund & Malmi (2002). However, there was some difference of opinion concerning the advantageousness of integrating more sophisticated techniques such as ABC or BSC into ERPS (see Granlund & Malmi, 2002; Hyvönen, 2000). The findings from the field suggested that integration of ABC and BSC into ERPS does not add any value for controllers' point of view. This once again reflected the definite split between producing data and interpreting figures in the contemporary context. Hence, the origin of data was considered quite insignificant among controllers as long as the data was reliable.

Finally, the study highlighted that the company has prolonged traditions of utilizing non-financials as an essential part of performance evaluation. The intense usage of operational measures was predominantly regarded to be derived from organization's strong engineer-led roots. Most importantly, the empirical evidence suggested that the present-day role of controllers is to show the connections between operational and financial results to line managers. Hence, these non-financial were considered to be strongly linked to the educative role of controllers to instil cost-consciousness into the organization. Consequently, contempoary controller is well-positioned to enhance knowledge creation and organizational learning (see Vaivio, 2004).

6.3 Relevance of traditional 'bean counter' concept

First of all, the study suggested strong arguments to challenge and reconsider the relevance of 'bean counter' concept in general. The literature does not provide any unanimous and precise view over 'bean counter' mindedness, but the concept is vaguely defined (e.g. see Friedman & Lyne, 1997; Granlund & Lukka, 1998a). Hence, the findings of this study strongly supported the need for critically re-examine the concept of 'bean counter' controller (see Vaivio & Kokko, 2006). Interestingly, the tone from the field introduced the past decades' management accountant as much more qualified and multi-skilled than the conventional 'bean counter' stereotypes would suggest (e.g. see Järvenpää, 2001). Moreover, management accounting literature does not make any distinction between different professions in accounting function, but the 'bean counter' concept is used extensively to cover both CFOs, business controllers and general ledger personnel. This kind of broad generalization was found definitely unsuitable for especially large multinational companies.

Finally, the study did not identify any traditionally defined 'bean counters' operating in the contemporary controller function (see Granlund & Lukka, 1997). Undoubtedly, certain characteristics related to the 'bean counter' concept were observed in controllers' daily practices, but more sophisticated roles and processes however largely offset the 'bean counter' mindedness. Consequently, instead of identifying a historically driven narrow-minded introvert, this study found a future-oriented management team member with deep understanding of business and external operating environment. Thus, the exposed empirical reality pointed out to bolster up the field study findings by Vaivio & Kokko (2006). Most interestingly, the empirical evidence strongly suggested that two completely different professions have actually emerged in the contemporary setting to correspond with traditional controller. Business controllers operating as a true business partner within the businesses and on the other hand, shared service personnel taking care of cost-effective production of data and routine reporting. Hence, the accounting professionals operating in a centralized service centers could be seen as contemporary 'bean counters'. However, this 'middle role' is far more demanding and sophisticated than the associations to 'bean counter' concept would suggest (see Vaivio & Kokko, 2006).

6.4 Main driving forces remoulding the controller function

The literature firmly suggested examining the change in management accountants' job descriptions in the organizational, structural and institutional context (see Järvenpää 2002; Scapens, 1994). Consequently, the study identified the existence of economic, structural and institutional pressures in remoulding the controller function (see Scapens, 2006). First of all, the study findings emphasized the considerable changes going on in the external business environment. The industry has gone through significant adjustments recently, which have predominantly directed the focus increasingly on profitability thinking. Hence, the need for redefining the roles of accounting professionals became evident too. Interestingly, the academics concentrate mainly on highlighting the effects of globalization and intensified competition, but the empirical findings went a bit closer to operations by emphasizing the fundamental transition occurring in the industry. An intensified cost consciousness has put the line managers increasingly responsible for their own costs, which on the contrary has remoulded the role of controller.

Moreover, this study strongly advocated the research conducted by Granlund & Lukka (1998a) by highlighting the importance of technical advancements in enabling the controllers' to remould their job descriptions. The tone from the field suggested that the definite split between business controllers and centralized service producers became possible due to implementation of global systems such as SAP. Furthermore, the study acknowledged the significance of structural pressures, but the decentralization of management accounting for instance was mainly seen as a direct consequence of harmonized information systems, not as a driving force per se (e.g. see Burns & Scapens, 2000a; Partanen, 2001). Therefore, the emergence of global and harmonized information systems was considered the utmost precondition for this whole transition towards contemporary controllers.

The coercive institutional pressures were interestingly considered to have moved the development slightly backwards by increasing the control processes again. Moreover, the empirical evidence was unanimous with Granlund & Lukka (1998b) concerning the diminishing importance of national institutions for especially multinational companies. The study found also evidence of normative pressures (e.g. see Järvenpää, 2002). The professionalization of controllers was recognized to some extent, but the influence of top executives responsible for organizing the accounting function was prioritized. Most

importantly, the study emphasized the shareholders' increased influence, which has considerably enhanced the disclosure requirements. Shareholders and other stakeholders are nowadays demanding more timely and multifaceted information, which has put the burden on controllers to remould their traditional roles. Finally, the study unsurprisingly indicated that benchmarking was recognized to have influenced the current expansion of business controller ideology (e.g. see O'Neill et al., 1998). However, this whole trend became simultaneously critically questioned; the tone from the field challenged the permanence of these constantly evolving managerial fads (see Burns & Vaivio, 2001).

7. CONCLUSIONS AND DISCUSSION

First of all, this study strongly suggested that a substantial transition in management accounting practices has taken place recently. Moreover, the empirical reality unquestionably acknowledged the complex and contextual nature of this phenomenon (Scapens, 1994). Consequently, the study clearly identified economic, structural and institutional pressures alike in remoulding the controller function. Especially, the repercussions of dramatic structural changes in the industry with mature markets and high over-capacity were broadly recognized in driving the need for reconsidering the controller's role. Furthermore, the study indicated that external stakeholders have intensified their presence in companies, which has resulted in growing demand for transparency. Thus, a need for contemporary business controllers has arisen.

Foremost, this study found cogent evidence of critically re-examining the traditionally defined 'bean counter' concept in the contemporary settings (see Vaivio & Kokko, 2006). By reflecting the field observations against the professional attributes widely attached to 'bean counter' concept, this study was not able to identify the 'bean counter' mindset in the exposed organizational reality. Most interestingly, the tone from the field put even the past relevance of conventional 'bean counter' concept under scrutiny; the empirical findings suggested that controllers must have known the business already for decades.

Finally, the following figure illustrates the definite split between business controlling and transaction processing observed in the contemporary context (Figure 8). Hence, this study strongly suggests that two clearly distinguishable accounting professions have emerged; a management oriented forward-looking business controller and an accounting oriented socially capable contemporary 'bean counter'. Most importantly, the empirical evidence strongly indicated that this role separation was enabled by the mobilization of modern management accounting techniques. The implementation of global and harmonized information systems was perceived as considerable prerequisite for the emergence of shared service centers. Therefore, this management accounting transition is not merely expanding the roles of controllers, but providing new structures for cost-efficient routine reporting too.

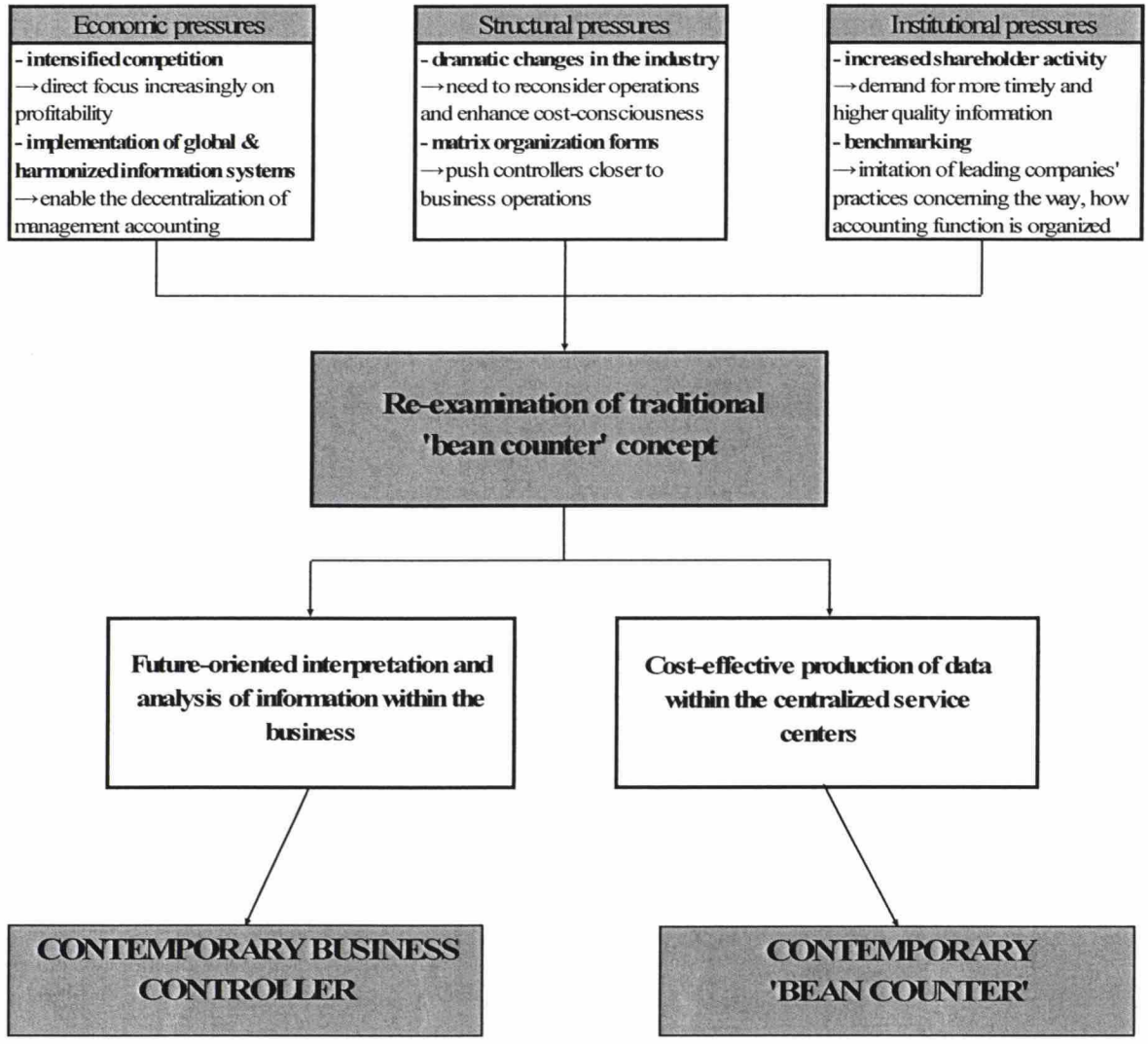

Figure 8: An illustrative model of management accounting transition

7.1 Contemporary controller identified in the organizational reality

This study offers a contrast to Granlund & Lukka's model presenting the expansion of the management accountant's job description (1998a, pp. 187). The field observations suggested that the peak of the outlined role development is nowadays in a situation, where controllers operate as agents for driving cost-consciousness and profitability focus into the organization (Figure 9). Especially engineer-led corporations such as the case company have actual need for this kind of contemporary management accounting professionals, who introduce financial view into the operations. However, the role of acting as equal members of management teams still remains extremely important too, but controllers have extended their role by focusing increasingly on showing the line managers the intertwined nature of operational measures and

financial performance. Thus, the role of contemporary controllers is undoubtedly to facilitate line management's understanding of the numbers so that they can make decisions based on them and act on them. Simultaneously, the business managers are being held increasingly accountable for their own costs and performance. Hence, the 'educative' role of contemporary controllers releases their time and effort on more value-added duties such as supporting managerial decision-making. Finally, this study strongly suggested that the 21st century role of controller is primarily to bring euros to everything; by operating within the business, the contemporary controller is well-positioned to spread 'money does matter' attitude into the operations.

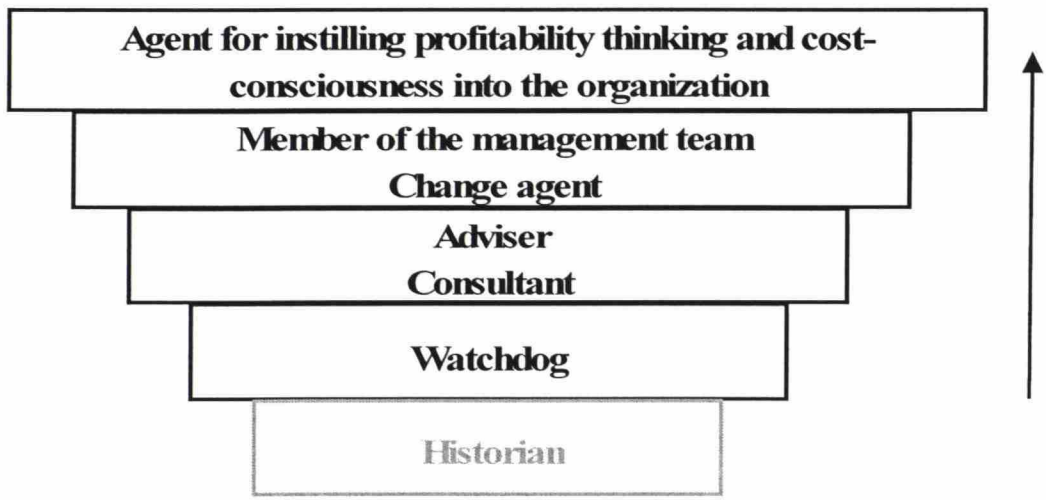

Figure 9: A revised model of the expansion of management accountant's job description

Moreover, the field observations indicated that the role of 'historian' was essentially non-descriptive in the investigated empirical context, which substantially contradicted with previous studies (see Granlund & Lukka, 1998a; Järvenpää, 2002). On the contrary, this study found utterly forward-looking management accounting professional, who is intensively involved in preparing scenario analyses for managerial purposes. Interestingly, these past-oriented processes are either automated or shifted to centralized service centers in the contemporary settings.

Nevertheless, 'watchdog' duties still continue to play important role in present-day controller's practices. Surprisingly, the tone from the field even suggested that the control processes have gained more ground recently. This tendency is mainly a consequence of tightened statutory regulations such as SOX, which have remoulded the controller's job

description by introducing more strict internal control requirements for US listed companies. However, the intensified 'watchdog' duties were not considered conflicting with the controllers' more advanced decision-support roles; if anything, control processes were observed to supplement business focused mindset by forcing controllers to critically evaluate their practices and routines. Thus, this study suggested that the 'watchdog' duties have smoothly melted into controllers' business-oriented mindsets in the contemporary context.

Inconsistent with the field observations by Burns & Baldvinsdottir (2005), this study strongly indicated that management accountants' role change did entail implementation of modern management accounting techniques. Although the study acknowledged the minor magnitude of ERPS on controllers' daily practices (see Granlund & Malmi, 2002), the tone from the field intensely emphasized the importance of global information systems in clearing the way for this management accounting transition overall. Most interestingly, the observations suggested that controllers are increasingly market and customer oriented today, which is clearly reflected in their primary tools as well; relatively simple and user-friendly cube models enabling the profitability analysis by customers, products or market areas, were widely utilized in the exposed empirical reality. Moreover, rather plain and traditional management accounting techniques pointed out to be most popular among practitioners, which supported the arguments presented in previous studies (see Burns & Scapens, 2000a; Granlund & Malmi, 2002).

7.2 Need for redefining the traditional 'bean counter' concept

Although the field observations were not able to identify the traditional 'bean counter' concept in the exposed contemporary settings (see Vaivio & Kokko, 2006), this study still would not pronounce 'bean counter' mindset totally dead. However, the 'bean counters' organizational position today is screamingly far from the Business Control. Hence, the empirical evidence clearly revealed the need for re-examining the concept to meet the contemporary organizational reality. In sharp contrast to many previous studies (see Friedman & Lyne, 1997; Granlund & Lukka, 1997), this study did not find a withdrawn and isolated accounting professional, but the field observations strongly suggested the emergence of contemporary 'bean counter'- a 'middle role' management accountant (see Vaivio & Kokko, 2006). Nevertheless, this study indicated that these contemporary 'bean counters' are not

literally 'bean counters', but their role is far more sophisticated than the associations related to the traditionally defined concept would suggest. Most importantly, these 'middle role' management accountants are socially skilled accounting specialists involved in highly demanding transaction processing (Figure 10).

	Contemporary 'bean counter'	Contemporary controller
Physical location	• operating in centralized global service center	• operating within the business
Processes	• cost-effective production of data and routine reports	• value-added business decision support • provision of scenario analyses • showing line managers the linkage between operational and financial performance
Tools	• global integrated information systems such as ERPS	• user-friendly cube tools enabling multidimensional profitability analyses
Knowledge	• profound accounting knowledge; thorough expertise in one's field of specialization • basic understanding of business logic • socially capable & communicative team-player	• deep understanding of business causalities; broad recognition of performance drivers • strong acquaintance with markets & customers • superior in interpersonal skills
Roles	• specialist in transaction processing • provider of timely and high-quality data & reports for internal & external purposes	• equal member of management teams • agent for driving cost-consciousness & profitability focus

Figure 10: The typical characteristics of emerged accounting professionals compared

Clearly, the empirical findings strongly supported the study conducted by Vaivio & Kokko (2006) by putting the practical validity of 'bean counter' concept under scrutiny in contemporary organizational reality. However, this study also found evidence of challenging the relevance of the concept altogether; professional distinctions and attributes attached to the traditional 'bean counter' were not identified as such in the past either. Interestingly, this study suggested that certain management accounting professionals have acted in more sophisticated roles for decades now, which unquestionably offered a contrast to several previous studies (see Friedman & Lyne, 1997; Granlund & Lukka, 1997). Consequently, instead of a narrow-minded and unsocial character, the study found evidence of a past management accountant operating in management teams as from 1975. Instead of a historically driven professional focusing solely on accounting details, the observations

revealed implications of a management accounting specialist with decent understanding of business and capabilities of preparing revenue and cost analyses.

Finally, this study does not suggest disputing the entire validity of the 'bean counter' concept, especially in the past settings; the 'bean counter' mindset has undeniably been visible among many management accountants in the past. However, the study poses a challenge for the way, how vaguely and naively the concept has been defined in literature in the first place (see e.g. Friedman & Lyne, 1997). Moreover, this study found a similar need for reviewing and specifying the explication of controller or management accountant. In literature, controller is far too often wall-to-wall concept; practically everybody from general ledger to CFO is included in the notion. Hence, the redefinition of the concepts is undoubtedly needed in order to gain more practical relevance; hazily explicated categorizations underestimate the organizational diversity and do not meet the organizational reality. Hence, this study strongly suggests challenging the stereotypical categorizations; it is the personal characteristics, which ultimately define your role as a management accounting professional.

7.3 Limitations of the study

This study aimed primarily to give empirically oriented suggestive rather than conclusive aspects for the topic. The study eagerly acknowledged the lack of recent empirical evidence from the field and thus, this study pursued to shed light on the practices of contemporary controllers in the exposed organizational reality. However, this study willingly admits its limitations. First of all, the empirical data emanates from the large multinational company, which presumably possesses comparatively sophisticated controller practices[6]. Secondly, the management accounting change is rather complex and contextual by nature (see Scapens, 1994). Hence, the influence of organizational culture and powerful institutions should be acknowledged. Moreover, the field observations only stand for the organizational reality of a particular company in a certain industry. The study's focus was predominantly on a single specific function – the Business Control. Thus, the empirical evidence merely illustrates the limited scope of the organization. Furthermore, the effect of personalities and individual characteristics on the study outcomes should not be ignored. However, instead of widely

[6] The intention is not to present generalizations of the excellence of large cap companies, but just to acknowledge the scale advantages in following the most recent trends and progression.

generalizable results, this study eagerly aspired to provide a rich case description from the field to extend our general understanding of the contemporary controllers' practices. Moreover, this study hopes to inspire more empirically centred studies to be conducted around this phenomenon.

7.4 Guidelines for further research

A great number of interesting topics for further studies arose during the process. This study had central focus on business controllers, but a more profound analysis of contemporary 'bean counters' mindsets would be worth conducting. The study's empirical findings suggested that the physical location of the 'middle role' controllers is in centralized service centers, but future studies could test this hypothesis by examining the nature of contemporary 'bean counters' more thoroughly. The study framework introduced here might be quite useful in analyzing the core nature of 'middle role' management accounting professionals too. However, also further research possibilities emanate from this four-dimensional approach; how this insight could be replenished in order to gain more detailed and deep-probed investigation into the organizational reality. Moreover, this study suggested that it would be highly interesting of exposing the controller practices in a small or middle size company. This would considerably expand our understanding about the existence and relevance of traditionally defined 'bean counters'.

Furthermore, the mutual relationship with CFO and CEO would be extremely relevant topic for further studies. Interestingly, CFO represents the utmost management accounting professional in the organization, and hence he or she is operating on the crucial interface between management accounting and top executive practices. Consequently, the qualitative investigation of the interpersonal processes of acting as a true partner for top management would be worth examining; how can CFO add most value to the corporation and assist CEO most effectively.

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APPENDIXES

Appendix 1: The interviews

TITLE OF PERSON INTERVIEWED	DATE	DURATION
Divisional Controller A	21.04.2006	1 h
Divisional Controller B	25.04.2006	1 h
Functional Controller A	27.04.2006	1 h 15 min.
Vice President of Finance	03.05.2006	1 h 15 min.
Director of Group Business Control	22.05.2006	45 min.
Mill Controller A	19.05.2006	50 min.
Functional Controller B	29.05.2006	1 h
Mill Controller B	31.05.2006	55 min.

Total duration of interviews: 8 h

Appendix 2: A typical theme interview framework

BACKGROUND INFORMATION OF INTERVIEWEES

- title and current job description
- working history in brief; how long you have been working in the company / in this current position?
- educational background

THE KEY PROCESSES INVOLVED

- main duties both in the line organization and in the matrix
- relative weight of routine reports and ad hoc-analyses
- most important co-operational parties in your every-day practices
- significance of control processes today
- most essential ways to add value and support businesses
- how is business orientation reflected in your daily work

THE MAIN TOOLS AND INFORMATION SYSTEMS UTILIZED

- central requirements from effective management information systems
- traditional techniques versus modern innovations
- how do you see your role in the developing projects of new tools?
- effect of ERPS on management accounting and controllers' work
- are operational managers capable of using information systems independently?
- non-financials as part of the performance evaluation
- importance of integrated tools

THE ESSENTIAL KNOWLEDGE REQUIRED

- relative importance of accounting skills and broad business knowledge
- main personal characteristics to succeed as a controller
- tacit knowledge as part of the controller's competence
- significance of understanding the external business environment

THE VARIOUS ROLES ACTED

- would you consider yourself as a 'true business partner'? explain why?
- are you still involved in preparing routine past-oriented variance analyses?
- educative roles and organization learning as part of your job
- significance of personal features and capabilities in defining your role
- withdrawal historically driven accounting specialist still needed? where?

THE RECENT TRANSITION IN MANAGEMENT ACCOUNTING PRACTICES

- have you experienced some considerable changes in controller function lately?
- if so, can you specify certain internal or external driving forces behind this?
- what are the main repercussions of this transition in your opinion?
- interaction with other companies' controllers

THE SHORT DESCRIPTION OF PERFOMANCE EVALUATION PROCESS

- how to avoid total surprises and be constantly familiar with the development trend?
- certain personal methods to create the big picture
- importance of tacit knowledge in interpreting figures
- significance of networking and broad business knowledge in the process

ANY SURPRISES OF BEING A CONTROLLER

- has the controller's position met your expectations or have you experienced some positive or negative surprises in your job?